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# ANNUAL ANNOUNCEMENT

OF THE

# DENTAL SCHOOL

OF

# HARVARD UNIVERSITY

## 1909–10

CAMBRIDGE, MASS.
Published by the University
1910

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# DENTAL SCHOOL CALENDAR

## 1909.

*Sept. 23, Thursday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.

*Sept. 30, Thursday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.

*Oct. 6, Wednesday.* } Inauguration of the President.
*Oct. 7, Thursday.* }

*Nov. 25, Thursday.* Thanksgiving Day: a holiday.

*Dec. 7, Tuesday.* } Dedication of New Building of the Dental
*Dec. 8, Wednesday.* } School.

Recess from Dec. 23, 1909, to Jan. 2, 1910, inclusive.

## 1910.

*Jan. 1, Saturday.* Last day for receiving dissertations for the Boylston Medical Prizes.

*Jan. 15, Saturday.* Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1910.

*Jan. 27, Thursday.* Mid-year examinations begin.

*Jan. 31, Monday.* Payment of the second instalment of the tuition-fee is required on or before this date.

*Feb. 1, Tuesday.* **Second half-year begins.**

*Feb. 22, Tuesday.* Washington's Birthday: a holiday.

*April 1, Friday.* Last day for receiving dissertations for the Bowdoin Prizes.

Recess from April 17 to April 23, inclusive.

*May 2, Monday.* Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.

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|---|---|---|
| *May 2,* | *Monday.* | Last day for receiving applications of candidates for the degree of D.M.D. in June, 1910. |
| *May 30,* | *Monday.* | Memorial Day : a holiday. |
| *June 1,* | *Wednesday.* | Examinations begin. |
| *June 27,* | *Monday.* | Alumni Day. |
| *June 29,* | *Wednesday.* | **Commencement.** |

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT DAY TO SEPTEMBER 28, INCLUSIVE

| | | |
|---|---|---|
| *Sept. 22,* | *Thursday.* | Examinations begin for applicants for advanced standing, and for men previously conditioned. |
| *Sept. 29,* | *Thursday.* | **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date. |

# DEPARTMENTS OF THE UNIVERSITY

The University comprehends the following departments: —

Harvard College,
Lawrence Scientific School,
Graduate School of Arts and Sciences,
Graduate School of Applied Science,
Graduate School of Business Administration,
Divinity School,
Law School,
Medical School,
Dental School,
Bussey Institution of Applied Biology,
Arnold Arboretum,
University Library,
Museum of Comparative Zoölogy,
Peabody Museum of American Archaeology and Ethnology,
University Museum,
Botanic Garden,
Gray Herbarium,
Astronomical Observatory.

☞ Students in regular standing in any one department of the University are admitted free to the instruction and the examinations given in any other department, with the exception of exercises carried on in the special laboratories. But no student whose tuition fee for the year amounts to less than $150 is admitted to exercises given in any department other than that in which he is enrolled, except by special permission of the Dean of the department in which the instruction is given, after being duly accredited thereto by the Dean of the department of which the student is a member.

# ADMINISTRATIVE OFFICERS

## THE UNIVERSITY

*President:* Abbott Lawrence Lowell, A.B., LL.B., LL.D.
Office, 5 University Hall, Cambridge.

*Treasurer:* Charles Francis Adams, 2d, A.B., LL.B.

*Comptroller:* Howard Lane Blackwell, PH.D.
The office of the Corporation (and of the Treasurer and the Comptroller) is at 50 State Street, Boston. Office hours, 9 A.M. to 5 P.M.; Saturday, 9 A.M. to 1 P.M.

*Secretary to the Corporation:* Jerome Davis Greene, A.B.

*Assistant Secretary to the Corporation:* Joseph Warren, A.B., LL.B.
Office, 5 University Hall, Cambridge.

*Bursar:* Charles Frank Mason, A.B.

*Assistant Bursar:* William Morrow McInnes, A.M., LL.B.
Office, Dane Hall, Cambridge. Office hours, 9 A.M. to 1 P.M.

*Inspector of Grounds and Buildings:* Walter Safford Burke.
Office, Massachusetts Hall. Office hours, daily, 8.45 A.M. to 12 M., and 4.30 to 4.45 P.M.

*Librarian:* William Coolidge Lane, A.B.
Office, Gore Hall, Cambridge.

*Director of Hemenway Gymnasium:* Dudley Allen Sargent, M.D., S.D.
Office, Hemenway Gymnasium, Cambridge.

*Regent:* Charles Miner Stearns, A.B.
Office, 10 University Hall, Cambridge. Office hours, Monday, Wednesday, and Friday, 9 to 10.30 A.M.; Tuesday and Thursday, 9 to 10 A.M.

*Publication Agent:* Charles Chester Lane, A.B.
Office, 2 University Hall, Cambridge.

## THE FACULTY OF ARTS AND SCIENCES

*The Offices of this Faculty and of the Departments under its charge at Nos. 4, 10, 16, 17, 20, 23 and 24, University Hall, Cambridge, are open on week-days, except Saturdays, from* 9 A.M. *to* 1 P.M., *and on Saturdays from* 9 A.M. *to* 12 M. *Nos. 10, 16, 17, 20, 23, and 24 are also ordinarily open on week-days, except Saturdays, from* 2 *to* 4 P.M.

*Dean of the Faculty of Arts and Sciences:* Le Baron Russell Briggs, A.M., LL.D., LITT.D.
Office, 10 University Hall. Office hours, Monday, 10 A.M. to 1 P.M.

*Dean of the Graduate School of Arts and Sciences:* CHARLES HOMER HASKINS, PH.D.

Office, 23 University Hall. Office hours, daily, except Saturday, 12 M. to 1.15 P.M.

*Dean of Harvard College:* BYRON SATTERLEE HURLBUT, A.M.

Office, 4 University Hall. Office hours, Monday, Tuesday, Friday, 10 A.M. to 12.30 P.M.

*Assistant Dean of Harvard College:* WILLIAM RICHARD CASTLE, JR., A.B.

Office, 4 University Hall. Office hours, Wednesday, Thursday, 11 A.M. to 1 P.M.

*Dean of the Lawrence Scientific School* and *of the Graduate School of Applied Science:* WALLACE CLEMENT SABINE, A.M., S.D.

Office, 16 University Hall. Office hours, Tuesday, Wednesday, Thursday, 9.30 to 10.30 A.M.

*Dean of the Graduate School of Business Administration:* EDWIN FRANCIS GAY, PH.D.

Office, 17 University Hall. Office hours, daily, 11 A.M. to 12.30 P.M.

*Secretary of the Faculty of Arts and Sciences* and *Chairman of the Committee on Admission:* JOHN GODDARD HART, A.M.

Office, 20 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

*Recorder of the Faculty of Arts and Sciences:* GEORGE WASHINGTON CRAM, A.B.

*Assistant Recorder of the Faculty of Arts and Sciences:* CHARLES STURTEVANT MOORE, A.M.

Office, 4 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

*Chairman of the Committee on the Summer School and Supplementary Teaching:* JAMES HARDY ROPES, A.B., D.D.

Office, University Hall, fourth floor. Office hours, Tuesday and Thursday, 11.30 A.M. to 12.30 P.M.

*Secretary of the Graduate School of Arts and Sciences:* GEORGE WASHINGTON ROBINSON, A.B.

Office, 24 University Hall. Office hours, daily, 10 A.M. to 12 M., and daily, except Saturday, 2 to 4 P.M.

*Secretary of the Graduate School of Business Administration:* LINCOLN FREDERICK SCHAUB, A.M., LL.B.

Office, 17 University Hall. Office hours, daily, 10 to 11 A.M.

*Secretary for Appointments:* EDGAR HUIDEKOPER WELLS, A.B.

Office, 9 University Hall. Office hours, Monday, Thursday, Saturday, 10 A.M. to 12 M., and Tuesday, Wednesday, Friday, 2.30 to 4 P.M.

*Assistant Secretary for Appointments:* ROGER ALDEN DERBY, A.B.

Office, 9 University Hall. Office hours, daily, 10 A.M. to 12 M., and daily, except Saturday, 2.30 to 4 P.M.

## LABORATORIES AND MUSEUMS ASSOCIATED WITH THE FACULTY OF ARTS AND SCIENCES

*Director of the Chemical Laboratory:* Charles Robert Sanger, ph.d.
The Chemical Laboratory is in Boylston Hall.

*Director of the Jefferson Physical Laboratory:* John Trowbridge, s.d.
The Jefferson Physical Laboratory is on Holmes Field.

*Director of the University Museum:* Alexander Agassiz, ll.d.

*Curator of the Museum of Comparative Zoölogy:* Samuel Henshaw, a.m.

*Honorary Curator of the Botanical Museum:* George Lincoln Goodale, m.d., ll.d.

*Curator of the Mineralogical Museum:* John Eliot Wolff, ph.d.

*Honorary Curator of the Peabody Museum of Archaeology and Ethnology:* Frederic Ward Putnam, a.m., s.d.
The above Museums are between Oxford Street and Divinity Avenue.

*Curator of the Semitic Museum:* David Gordon Lyon, ph.d., d.d.
The Semitic Museum is on Divinity Avenue.

*Curator of the Germanic Museum:* Kuno Francke, ph.d., ll.d.
The Germanic Museum is at the junction of Cambridge Street and Broadway, opposite Memorial Hall.

*Director of the William Hayes Fogg Museum of Art* and *Curator of the Gray Collection of Engravings:* Edward Waldo Forbes, a.b.
The Fogg Museum of Art is on Cambridge Street.

*Director of the Botanic Garden:* Oakes Ames, a.m.

*Curator of the Gray Herbarium:* Benjamin Lincoln Robinson, ph.d.
The Herbarium and Botanic Garden are at the corner of Garden and Linnaean Streets.

## OTHER FACULTIES AND DEPARTMENTS

*Dean of the Faculty of Divinity:* William Wallace Fenn, a.m., d.d.
Office hours, daily, 12 m.

*Secretary of the Faculty of Divinity:* James Hardy Ropes, a.b., d.d.
Office, Divinity Library, Cambridge. Office hours, Wednesday, Friday, 11 to 11.30 a.m.

*Acting Dean of the Faculty of Law:* Samuel Williston, a.m., ll.b.
Office, Langdell Hall, Cambridge.

*Secretary of the Faculty of Law:* Richard Ames, a.b., ll.b.
Office, Langdell Hall, Cambridge. Office hours, daily, 9 a.m. to 1 p.m.

*Librarian of the Law School:* John Himes Arnold, a.m.

*Asst. Librarian of the Law School:* Robert Bowie Anderson.
Office, Langdell Hall, Cambridge.

*Dean of the Faculty of Medicine*
*Dean of the Medical School* } Henry Asbury Christian, A.M., M.D.
Office, Harvard Medical School, Longwood Avenue, Boston. Office hours, Friday, 4 to 5 P.M.

*Secretary of the Faculty of Medicine*
*Director of the Summer School of Medicine* } Channing Frothingham, Jr., A.B., M.D.
Office, Harvard Medical School, Longwood Avenue, Boston. Office hours, daily, except Saturday, 12 M. to 1 P.M.

*Dean of the Dental School:* Eugene Hanes Smith, D.M.D.
Office, Harvard Dental School, Longwood Avenue, Boston. Office hours, Wednesday, 4.30 to 5.30 P.M., and by appointment.

*Curator of the Dental Museum:* Waldo Elias Boardman, D.M.D.
Office, 419 Boylston Street, Boston.

*Director of the Arnold Arboretum:* Charles Sprague Sargent, A.B., LL.D.
The Arnold Arboretum is in Jamaica Plain. The nearest railway and telegraph station is Forest Hills, on the Boston and Providence Division of the N.Y., N.H., and Hartford Railroad.

*Director of the Astronomical Observatory:* Edward Charles Pickering, LL.D., D.SC.
The Observatory is at the corner of Garden and Bond Streets, Cambridge.

# THE DENTAL SCHOOL

## FACULTY OF MEDICINE *

ADDRESS.†

ABBOTT LAWRENCE LOWELL, LL.B., LL.D., PRESIDENT, 17 Quincy St., Cambridge.

HENRY A. CHRISTIAN, M.D., DEAN, and *Hersey Professor of the Theory and Practice of Physic*, 252 Marlborough St.

CLARENCE J. BLAKE, M.D., *Walter Augustus Lecompte Professor of Otology*, 226 Marlborough St.

THOMAS DWIGHT, M.D., LL.D., *Parkman Professor of Anatomy*, Harvard Medical School.

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THOMAS MORGAN ROTCH, M.D., *Professor of Pediatrics*, 197 Commonwealth Ave.

EUGENE H. SMITH, D.M.D., *Professor of Clinical Dentistry and Orthodontia*, and *Dean of the Dental School*, 283 Dartmouth St.

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CHARLES S. MINOT, S.D., LL.D., D.Sc., *James Stillman Professor of Comparative Anatomy*, Harvard Medical School.

MAURICE H. RICHARDSON, M.D., *Moseley Professor of Surgery*, 224 Beacon St.

* Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

CHARLES M. GREEN, M.D., *Professor of Obstetrics*, 78 Marlborough St.

EDWARD C. BRIGGS, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics*, 129 Marlborough St.

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MYLES STANDISH, M.D., *Williams Professor of Ophthalmology*, 6 St. James Ave.

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FRANK B. MALLORY, M.D., *Associate Professor of Pathology*, Harvard Medical School.

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HOWARD A. LOTHROP, M.D., *Instructor in Surgery*, 101 Beacon St.
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JAMES H. WRIGHT, M.D., Sc.D., *Assistant Professor of Pathology*, Mass. General Hospital.
OTTO FOLIN, Ph.D., *Hamilton Kuhn Professor of Biological Chemistry*, Harvard Medical School.
ROBERT B. GREENOUGH, M.D., *Instructor in Surgery*, 377 Beacon St.
FRANKLIN S. NEWELL, M.D., *Assistant Professor of Obstetrics and Gynaecology*, 379 Beacon St.
LEONARD W. WILLIAMS, Ph.D., *Instructor in Comparative Anatomy*, Harvard Medical School.
JOHN L. BREMER, M.D., *Demonstrator of Histology*, Harvard Medical School.
WALTER B. CANNON, M.D., *George Higginson Professor of Physiology*, Harvard Medical School.
MAURICE V. TYRODE, M.D., *Instructor in Pharmacology*, 416 Marlborough St.
JOHN WARREN, M.D., *Assistant Professor of Anatomy*, Harvard Medical School.
DAVID CHEEVER, M.D., *Demonstrator of Anatomy*, 20 Hereford St.
FREDERIC T. LEWIS, M.D., *Assistant Professor of Embryology*, Harvard Medical School.
ELMER E. SOUTHARD, M.D., *Bullard Professor of Neuropathology*, 37 Trowbridge St., Cambridge.
ERNEST E. TYZZER, M.D., *Assistant Professor of Pathology*, Harvard Medical School.
LAWRENCE J. HENDERSON, M.D., *Instructor in Biological Chemistry*, Westmorly 2, Cambridge.
CHANNING FROTHINGHAM, Jr., M.D., *Secretary of the Faculty of Medicine*, and *Assistant in the Theory and Practice of Physic*, 51 Hereford St.

## STANDING COMMITTEES FOR THE DENTAL SCHOOL

*Building.* — Dr. Cooke (*Chairman*), Drs. E. H. Smith and Cross.

*Courses of Study.* — Dr. Smith (*Chairman*), Drs. Potter, Cooke, and Briggs.

*Summer Courses.* — Dr. Potter (*Chairman*), Drs. Cooke and Cross.

---

*Students' Health.* — Dr. Ernst (*Chairman*), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

*Students' Aid.* — Any student who needs assistance, pecuniary or other, may consult Dr. Franklin Dexter, in the Dean's Office, Harvard Dental School, Fridays, at 1.40 P.M.

# THE DENTAL SCHOOL

## BOSTON

### GENERAL STATEMENT

The Harvard Dental School is established in Boston and was instituted by vote of the President and Fellows of Harvard College, July 17, 1867. The first session of the School opened on the first Wednesday in November, 1867, and continued until the following March. The first examination of candidates for the degree of the School was held March 6, 1869.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. There is a recess from December 23 to January 2, inclusive; and a recess of one week's duration in April.

Instruction in this School is given throughout the academic year, by lectures, recitations, clinical teaching, and practical exercises, uniformly distributed. The course of instruction is progressive, and extends over three years, the teaching of one year not being repeated in the next.

The studies of the first year are pursued in connection with the classes in the Harvard Medical School, the student receiving instruction by the same professors at the same time and place with the medical students, and at the end of the year passing with them the examinations.

It is the object of the Faculty to present a complete course of instruction in the theory and practice of Dentistry; and for this purpose a well-appointed laboratory and infirmary are provided, and such arrangements made as ensure an ample supply of patients. Clinical instruction is given by the professors and other instructors; and, under the direction of demonstrators, patients are assigned to the students, ensuring to all opportunity of operating at the chair, and becoming by actual practice familiar with all the operations demanded of the dentist.

The Infirmary remains open, and clinical instructors and a demonstrator are in attendance, daily, throughout the academic year, offering to students excellent facilities for acquiring practical knowledge and manipulative dexterity.

Students have access to the hospitals of the city; to the dissecting-room and museum of the Medical School. Students in regular standing in any one department of the University are admitted free to the instruction and the examinations given in any other department, with the exception of

exercises carried on in the special laboratories. But no student whose tuition fee for the year amounts to less than $150 is admitted to exercises given in any department other than that in which he is enrolled, except by special permission of the Dean of the department in which the instruction is given, after being duly accredited thereto by the Dean of the department of which the student is a member.

That the time of study shall count as a full term, students of every class must present themselves within the first week of the term and register their names with the Dean.

## NEW BUILDING

In September, 1909, the Dental School moved to its new building, at the corner of Longwood Avenue and Wigglesworth Street. This building has the latest hospital equipment and is used solely for hospital purposes. It contains a commodious infirmary, three operating rooms for oral surgery with connecting wards, prosthetic laboratory, office of administration, library, museum, students' room and reception room.

It is connected by a subway with the Harvard Medical School buildings where all lectures are given.

## ADMINISTRATIVE BOARD

EUGENE H. SMITH, D.M.D., Dean, and *Professor of Clinical Dentistry and Orthodontia.*

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

EDWARD C. BRIGGS, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics.*

WILLIAM P. COOKE, D.M.D., *Professor of Prosthetic Dentistry.*

WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*

WALDO E. BOARDMAN, D.M.D., *Curator of Dental Museum*, and *Librarian.*

HAROLD DeW. CROSS, D.M.D., *Assistant Professor of Prosthetic Dentistry.*

AMOS I. HADLEY, D.M.D., *Instructor in Porcelain Work.*

## INSTRUCTORS, LECTURERS, AND ASSISTANTS

TIMOTHY O. LOVELAND, D.M.D., *Instructor in Operative Dentistry.*

ALBERT B. JEWELL, D.M.D., *Instructor in Operative Dentistry.*

FORREST G. EDDY, D.M.D., *Instructor in Operative Dentistry.*

GEORGE H. MONKS, M.D., M.R.C.S., *Lecturer on Surgery.*

EDWIN C. BLAISDELL, D.M.D., *Instructor in Operative Dentistry*

NED A. STANLEY, D.M.D., *Instructor in Operative Dentistry.*
JOHN BAPST BLAKE, M.D., *Instructor in Surgery.*
ARTHUR W. ELDRED, D.M.D., *Instructor in Prosthetic Dentistry.*
JOSEPH T. PAUL, D.M.D., *Instructor in Operative Dentistry.*
EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*
H. CARLTON SMITH, PH.G., *Lecturer on Dental Chemistry.*
C. MORTON SMITH, M.D., *Instructor in Syphilis.*
THOMAS B. HAYDEN, D.M.D., *Instructor in Prosthetic Dentistry.*
JAMES A. FURFEY, D.M.D., *Instructor in Operative Dentistry.*
MARQUIS D. LITTIG, D.D.S., M.D., D.M.D., *Instructor in Operative Dentistry.*
ROBERT T. MOFFATT, D.M.D., *Instructor in Porcelain Work.*
ERNEST H. CHUTE, D.M.D., *Instructor in Prosthetic Dentistry.*
EDWIN L. FARRINGTON, D.M.D., *Instructor in Extracting and Anaesthesia.*
HARRY W. HALEY, D.M.D., *Instructor in Prosthetic Dentistry.*
LAWRENCE W. BAKER, D.M.D., *Instructor in Orthodontia.*
HORACE L. HOWE, D.M.D., *Instructor in Orthodontia.*
WILLIAM D. SQUAREBRIGS, D.M.D., *Instructor in Extracting and Anaesthesia.*
HORACE A. DAVIS, D.M.D., *Instructor in Prosthetic Dentistry.*
JOHN W. ESTABROOKS, D.M.D., *Instructor in Prosthetic Dentistry.*
WILSON C. DORT, D.M.D., *Instructor in Prosthetic Dentistry.*
SAMUEL T. ELLIOTT, D.M.D., *Instructor in Operative Dentistry.*
ALBERT L. MIDGLEY, D.M.D., *Instructor in Extracting and Anaesthesia.*
CHARLES G. PIKE, D.M.D., *Instructor in Operative Dentistry.*
MELVILLE F. ROGERS, D.M.D., *Instructor in Operative Dentistry.*
ROBERT WHITEHILL, D.M.D., *Instructor in Operative Dentistry.*
LEO A. ROGERS, D.M.D., *Instructor in Prosthetic Dentistry.*
HARRY B. SHUMAN, D.M.D., *Instructor in Oral Surgery and Roentgenology.*
HERBERT F. LANGLEY, D.M.D., *Instructor in Prosthetic Dentistry.*
HARRY A. STONE, D.M.D., *Instructor in Extracting and Anaesthesia.*
WILLIAM H. WESTON, D.M.D., *Instructor in Prosthetic Dentistry.*
GEORGE H. WRIGHT, D.M.D., *Lecturer on Oral Hygiene.*
HARRY S. CLARK, D.M.D., *Instructor in Prosthetic Dentistry.*
MARTIN B. DILL, D.M.D., *Lecturer on Operative Dentistry.*
FRANK LER. EAMES, D.M.D., *Instructor in Prosthetic Dentistry.*
NATHAN A. ESTES, D.M.D., *Assistant in Operative Dentistry.*
JULIUS F. HOVESTADT, D.M.D., *Instructor in Prosthetic Dentistry.*
LEROY M. S. MINER, D.M.D., M.D., *Instructor in Oral Surgery.*
EUGENE B. WYMAN, D.M.D., *Demonstrator of Operative Dentistry.*

EARLE C. CUMMINGS, D.M.D., *Assistant in Roentgenology.*
JOHN A. FURBISH, D.M.D., *Instructor in Prosthetic Dentistry.*
VARAZTAD H. KAZANJIAN, D.M.D., *Demonstrator of Prosthetic Dentistry.*
OTIS S. SMITH, D.M.D., *Assistant in Operative Dentistry.*
CHARLES E. STEVENS, D.M.D., *Instructor in Operative Dentistry.*
FRED A. BECKFORD, D.M.D., *Instructor in Prosthetic Dentistry.*
WILLIAM H. GILPATRIC, D.M.D., *Instructor in Extracting and Anaesthesia.*
HAROLD B. NORWOOD, D.M.D., *Instructor in Extracting and Anaesthesia.*
MAURICE E. PETERS, D.M.D., *Instructor in Prosthetic Dentistry.*
ERNEST V. L. WHITCHURCH, D.M.D., *Instructor in Operative Dentistry.*

## DENTISTS TO OUT-PATIENTS

Isaac C. Arkin, D.M.D.
Clarence F. Churchill, D.M.D.
Lemuel M. Davis, D.M.D.
Nathaniel A. Finkelstein, D.M.D.
Roger B. Taft, D.M.D.

---

## STUDENTS

### Graduate Students

| NAME. | HOME RESIDENCE. | PRESENT ADDRESS.* |
|---|---|---|
| Charron, W. Arthur, D.D.S. (*Univ. of Maryland*) 1909, | *Worcester*, | 82 Park St., Worcester. |
| Humphreys, Francis Humphrey, L.D.S. (*Royal College of Surgeons*) 1909, | *Birmingham, England*, | 11 St. James Ave. |

### Third Year

| | | |
|---|---|---|
| Aisner, Julius, | *Revere*, | 19 Dana St., Revere. |
| Alexander, David John, | *Winthrop*, | Magee Corner, Winthrop. |
| Canaday, James Wallace, Jr. | *Albany, N. Y.* | 756 Tremont St. |
| Davenport, Sebert Ellsworth, Jr. | *New York, N. Y.* | 22 Mt. Auburn St., Cambridge. |
| Diez, Luis, A.B. (*Nat. Coll., Argentine Republic*) 1906, | *Salta, Argentine Republic*, | 756 Tremont St. |

* Addresses are in Boston unless stated to be elsewhere.

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|---|---|---|
| Finkelstein, Bernard, | *Roxbury*, | 83 Ruthven St., Rox. |
| Fisher, Guy Harrl, | *Upton*, | Upton. |
| Holzman, Albert Charles, | *Boston*, | 3 Poplar St. |
| Knight, Leroy Eugene, S.B. (*Norwich Univ.*) 1907, | *Bellows Falls, Vt.* | 112 St. Botolph St. |
| Knight, Ralph Mortimer, | *Bellows Falls, Vt.* | 112 St. Botolph St. |
| McCabe, Daniel Francis, | *No. Attleboro*, | 756 Tremont St. |
| McCarty, Daniel Joseph, | *Chelsea*, | 587 Broadway, Chelsea. |
| MacDonald, Charles Franklin, Jr. | *Boston*, | 1075 Boylston St. |
| McGlynn, James Thomas, A.B. (*Holy Cross Coll.*) 1902, | *Newton*, | 271 Bellevue St., Newton. |
| Metcalf, Martin Van Buren, | *Rockville, Conn.* | 103 Mt. Vernon St. |
| Morgan, Daniel Joseph, | *So. Boston*, | 110 I St., So. Boston. |
| O'Connor, Joseph Sylvester, | *Worcester*, | 25 Windsor St., Worcester. |
| Pease, George Andrew, | *Upton*, | 756 Tremont St. |
| Place, James Frederick, L.D.S. (*England*) 1909, | *Betley Crewe, Eng.* | 76 Brook St., Brookline. |
| Pyne, Robert Edward, | *Malden*, | 297 Columbus Ave. |
| Reed, Arthur Hodgkins, | *Chelsea*, | 86 Clarke Ave., Chelsea. |
| Schwartzbord, Fairvel Eliaschevitz, | *Druskeniki, Russia*, | 12 Wigglesworth St. |
| Siegel, David, | *Boston*, | 65 Poplar St. |
| Wing, Abner Toothaker, | *Weld, Me.* | 81 Staniford St. |
| Wodell, St. Clair Allan, | *Brookline*, | 12 Kent Sq., Brookline. |

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## Second Year

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|---|---|---|
| Bridgham, Frederick Hooke, | *Sullivan Harbor, Me.* | 84 Waumbeck St., Rox. |
| Emerson, Charles Sumner, Jr., | *Dorchester*, | 32 Sagamore St., Dor. |
| Haley, Byron Hinson, | *Eldora, N. J.* | 22 Mt. Auburn St., Cambridge. |
| Hichborn, Herman Everett, | *Cambridge*, | 26 Mt. Vernon St., Cambridge. |
| Hovestadt, Frederick Waldemar, | *Roslindale*, | 190 Beech St., Roslindale. |
| MacGregor, Judson Stewert, B.S. (*Acadia Univ.*) 1908, | *Kingston, N. S.* | 164 Longwood Ave. |
| McIntyre, Frederick Dean, | *Malden*, | 763 Salem St., Malden. |
| Ross, Charles Franklin, | *Lebanon, N. H.* | 264 St. Botolph St. |
| Sprague, Charles Frederick, | *Melrose*, | 116 Myrtle St., Melrose. |
| Stoddard, Samuel Warren, | *Marblehead*, | 120 Boylston St. |
| Storz, Leon Axtelle, | *Waterbury, Conn.* | 264 St. Botolph St. |
| Thoma, Kurt Hermann, | *Basel, Switzerland*, | 2 Berwick Park. |
| Walper, Bernard, | *Roxbury*, | 20 Ruthven St., Rox. |

## First Year

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|---|---|---|
| Alperin, Simon, | *Odessa, Russia,* | 78 Phillips St. |
| Anderson, Earl Alexander, | *Brewer, Me.* | 524 Columbus Ave. |
| Braman, William Edward, | *Rumford, R.I.* | 25 Roger Williams Ave., Rumford, R.I. |
| Burke, David Francis, | *Rockland,* | 164 Myrtle St., Rockland. |
| Chutjian, Berj Quarekin, | *New York, N. Y.* | 100 Boylston St. |
| Cloney, Thomas Francis, Jr. | *Dorchester,* | 46 Tonawanda St., Dor. |
| Cohen, Abraham Kaganovsky, | *Roxbury,* | 3294 Washington St., Rox. |
| Cottrell, Ivan Rogers, | *Norwood,* | 32 Warren St., Norwood. |
| Davidson, Joel Emanuel, | *Dorchester,* | 19 Fowler St., Dor. |
| Finberg, Joseph Benjamin, | *Vilno, Russia,* | 37 Lowell St. |
| Flink, Aaron Hyman Nathan, | *Boston,* | 14 So. Russell St. |
| Gahm, Adolph, | *Roxbury,* | 100 Day St., Rox. |
| Gallagher, Arthur Joseph, | *Waltham,* | 12 Gorham St., Waltham. |
| Giblin, Thomas James, Jr. | *Dorchester,* | 37 Mayfield St., Dor. |
| Gookin, Vincent Aloysius, | *Dorchester,* | 356 Seaver St., Dor. |
| Guthrie, Edward Martin, | *Malden,* | 4 Elmwood P'k, Malden. |
| Hassett, Francis Thomas, | *Rockville, Conn.* | 21 Wigglesworth St. |
| Hirshon, Elias, | *Boston,* | 71 Phillips St. |
| Horgan, Joseph, | *Cambridge,* | 24 Marion St., Cambridge. |
| Hoye, Harold Clement, | *Taunton,* | 36 Fenwood Road, Rox. |
| Jackson, George Henry, Jr. | *Newtonville,* | 11 Omar Terrace, Newtonville. |
| Jewett, William Gleason, | *Gardner,* | 50 Rutland Sq. |
| Johnson, Allan Clinton, | *Clinton,* | 702 Huntington Ave. |
| Klapacs, Victor Paul, | *So. Boston,* | 881 Broadway, So. Boston. |
| Lynes, Cedric Tremaine, | *Cambridge,* | 6 Arlington St., Cambridge. |
| Macdonald, Herbert Alexander, | *Somerville,* | 5 Norwood Ave., Somer. |
| McGourty, Lawrence Edward, | *Roxbury,* | 410 Pleasant St., Malden. |
| McGreen, Thomas Edward, | *Providence, R.I.* | 23 Wigglesworth St. |
| Manning, Paul Robert, | *Lowell,* | 229 Longwood Ave. |
| Menaker, Naaman, | *Nesvij, Russia,* | College House 68, Cambridge. |
| Noonan, Everett Leo, | *Cambridge,* | 109 Otis St., Cambridge. |
| Normand, John Clarence, | *Worcester,* | 559 Southbridge St., Worcester. |
| Nutter, Harry Yeates, | *Winchester,* | 7 Glengarry St., Winchester. |
| Ober, Herbert Carroll, | *Cambridge,* | 71 Fifth St., Cambridge. |
| Patten, Harry Maurice, | *Sullivan, Me.* | 358 Longwood Ave. |
| Pos, Julius Simon, | *Waterkant, Dutch Guiana,* | 12 Wigglesworth St. |
| Riggs, Francis Porter, | *Gloucester,* | 23 Wigglesworth St. |
| Schilling, Ira Jay, | *Canaan, N. Y.* | 77 Easton St., Allston. |
| Skinner, Henry James, | *Dorchester,* | 25 Sagamore St., Dor. |
| Small, Samuel, | *Boston,* | 39 Cooper St. |
| Tashjian, Nishan Der Sarkis, | *Harpoot, Armenia,* | 12 James St. |

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|---|---|---|
| Tufts, Harold Freeman, A.B. (*Acadia Coll.*) 1900, | *Wolfville, N. S.* | 706 Huntington Ave. |
| Waters, Everett Thomas, | *Marion*, | 8 Batavia St. |
| Wellington, Frederick Emory, | *Fitchburg*, | 198 St. Botolph St. |
| Winer, Meyer, | *Salem*, | Weld 4, Cambridge. |
| Wolfe, Chester Fisher, | *Norwood*, | 21 Maple St., Norwood. |
| Young, Nicholas Edward, | *Lawrence*, | 264 St. Botolph St. |

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SPECIAL STUDENT

| | | |
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| Ross, George Pozner, | *Boston*, | 37 Elmo St., Dor. |

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## SUMMARY

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|---|---|
| GRADUATE STUDENTS | 2 |
| THIRD-YEAR STUDENTS | 25 |
| SECOND-YEAR STUDENTS | 13 |
| FIRST-YEAR STUDENTS | 47 |
| SPECIAL STUDENT | 1 |
| TOTAL | 88 |

## THE HARVARD DENTAL SCHOOL

### Admission of Students

All candidates for admission holding a degree in letters, science, or medicine, from a recognized college or scientific school, or who have passed an examination for admission to Harvard College or any other reputable college of letters, or who have passed the examinations of a four years' course in a reputable high school, or furnish evidence of having had equivalent training, are admitted without examination. All other candidates must pass an examination.

All candidates, whether presenting a degree or not, are required to satisfy the Administrative Board that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry sufficient to fit them to pursue the courses in Chemistry given at the School, or, failing in this, to pass an examination in General Chemistry. Students who are unable to fulfil this requirement may enter conditioned in Chemistry.

Special arrangements may be made for making up this condition in August and September previous to entering the School or during the first half of the first year.

The entrance and first-year examinations will be allowed to foreign students who have passed *equivalent* examinations abroad, upon presentation of proper certificates from the examining boards, vouching for the facts.

A certificate of having passed the examination for admission will admit a student to this School only so long as the entrance requirements remain the same.

Students who have had a preliminary training equivalent to our requirements for admission and who began their professional studies in other recognized Dental or Medical Schools may be admitted to advanced standing; but all persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in dental or medical studies, and must pass examinations in the branches already pursued by the class to which they seek admittance.

*Graduates* of recognized dental schools and reputable practitioners of dentistry who have never received a degree will be admitted without examination to the courses in Operative and Prosthetic Dentistry, but attendance on such courses does not entitle a student to examination for the degree. A certificate of attendance will be furnished when desired.

## EXAMINATIONS FOR ADMISSION

Examinations for admission to the Harvard Dental School are held in June at Cambridge and at about fifty other cities in the United States*; in September they are held at Cambridge only.

## GENERAL REGULATIONS

### Registration Blanks

Candidates for admission by examinations should register for such examinations on a form which may be obtained from the Dean of the Harvard Dental School. The Registration Blanks of all candidates who wish to take examinations in June should be properly filled and in the hands of the Dean by June 10; those of candidates who wish to take examinations in September, by September 10.

### Good English

Clear and idiomatic English is expected in all examination papers and note-books written by candidates for admission. Teachers are requested to insist on good English, not only in translations, but in every exercise in which the pupil has occasion to write or to speak English.

### Laboratory Examinations

A candidate who is examined in any study in which a laboratory examination is held will hand in his laboratory note-book at *the hour of the laboratory examination*. Laboratory note-books will be deposited, after examination, in the College office, where they will be kept for one year, subject to the order of the owners.

A candidate examined in June at any place where a laboratory examination is not provided will be required to take such an examination in Cambridge in the autumn; but if he passes the written examination in June and presents a satisfactory note-book, the subject will be temporarily counted in his favor in determining the question of his admission to the School.

### Examination Papers

A set of recent examination papers will be sent free to any address, on application to the Dean of the Harvard Dental School, 283 Dartmouth St., Boston. Separate papers may be had in quantities of not less than *six* copies of any *one paper* (not one each of six different papers) at ten cents a dozen.

* A circular giving the dates of the examinations and a full list of the places where they will be held will be ready in March, 1910, and may be had on application to the Dean of the Dental School.

## STUDIES IN WHICH EXAMINATIONS ARE HELD

Examinations for admission to the Harvard Dental School will be held in the following subjects. Each candidate must offer studies amounting to 16 points. Sections 1, 2, 3, 4, 5 are required. Electives may be chosen from Section 6.

The figure attached to each study indicates the relative weight (termed points) which will be given to it in determining the question of the candidate's fitness for admission.

1. English (*4*)
2. Physics (*2*)
3. Latin (*4*)
   *or* French (*2*) and English and American History (*2*)
   *or* French (*2*) and Greek and Roman History (*2*)
   *or* German (*2*) and English and American History (*2*)
   *or* German (*2*) and Greek and Roman History (*2*)
4. Theoretical and Descriptive (Inorganic) Chemistry (*2*)
5. Algebra (*2*)

In addition he will be obliged to offer either —

6. Plane Geometry (*2*)
   Or any two of the following: —
   Solid Geometry (*1*)
   Botany (*1*)
   Zoölogy (*1*)
   Anatomy, Physiology, and Hygiene (*1*)
   Wood-working (*1*)
   Blacksmithing (*1*)
   Chipping, Filing, and Fitting (*1*)
   Machine-tool Work (*1*)

The examinations in the above subjects will be the same as those given in these subjects (elementary grade) for admission to Harvard College.

The examination in Theoretical and Descriptive (Inorganic) Chemistry will be given at the Harvard Dental School.

### English

The examination will be based on the Uniform Entrance Requirements in English.

The candidate will be required to write short compositions on topics drawn from his reading, and to answer questions on the subject-matter of certain books prescribed for careful study. He will be judged chiefly by the accuracy and the quality of the English he writes. No candidate will be accepted in English whose work is seriously defective in point of spelling, punctuation, grammar, or division into paragraphs.

The Uniform Entrance Requirements in English include two lists of books — one of books prescribed for reading, and one of books prescribed for careful study. The candidate is expected to read intelligently *all* the books prescribed. He should read them as he reads other books; he is expected, not to know them minutely, but to have freshly in mind their most important parts. In connection with the reading and study of the prescribed books he should read other books as parallel or subsidiary reading, and should commit to memory a considerable amount of English poetry.

In 1910 the examination in Elementary English will be based on the requirements in English adopted by the College Entrance Examination Board. These requirements are as follows: —

(*a*) *Reading and Practice.* — A certain number of books will be recommended for reading, ten of which, selected as prescribed below, are to be offered for examination. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number — perhaps ten or fifteen — set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In every case knowledge of the book will be regarded as less important than the ability to write good English.

The books set for this part of the examination will be: —

Shakspere's Merchant of Venice and Julius Caesar; the Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography; Macaulay's Lays of Ancient Rome; Scott's Ivanhoe and Lady of the Lake; Tennyson's Gareth and Lynette, Lancelot and Elaine, and Passing of Arthur; Hawthorne's House of the Seven Gables; Dickens's Tale of Two Cities.

(*b*) *Study and Practice.* — This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form, and structure. In addition, the candidate may be required to answer questions involving the essentials of English grammar, and questions on the leading facts in those periods of English literary history to which the prescribed works belong.

The books set for this part of the examination will be: —

Shakspere's Macbeth; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Burke's Speech on Conciliation with America, or Macaulay's Life of Johnson.

### Changes in Admission Examinations in English

Beginning with 1910 the examination in English may at the option of the candidate be divided into preliminary and final and the parts taken separately. The examination will be arranged as follows: —

1. Topics from books for reading, one hour.
2. Test in composition for preliminary candidates only, thirty minutes.
3. Test in composition for final candidates, one hour.
4. Questions on books for study, thirty minutes.

In 1911 and 1912 the examination on the books for reading will be based on the list of books recommended by the Conference on Uniform Entrance

Requirements in English which met February 22, 1905. This list is printed in the Catalogue for 1908–09, on p. 492. The following list of books chosen out of this list is recommended; the examination, however, will be based on the full list: —

Shakspere's As You Like It (or Merchant of Venice) and Julius Caesar; The Sir Roger de Coverley Papers in the Spectator (or Franklin's Autobiography); Goldsmith's Deserted Village (or Chaucer's Prologue to the Canterbury Tales); Dickens's Tale of Two Cities (or Scott's Ivanhoe); George Eliot's Silas Marner (or Hawthorne's House of the Seven Gables); Irving's Sketch Book (or Carlyle's Heroes and Hero Worship); Scott's Lady of the Lake (or Coleridge's Ancient Mariner); Byron's Mazeppa and Prisoner of Chillon (or Lowell's Vision of Sir Launfal); Macaulay's Lays of Ancient Rome (or Tennyson's Gareth and Lynette, Lancelot and Elaine, and Passing of Arthur).

The books for study in 1911 are: —

Shakspere's Macbeth; Milton's L'Allegro, Il Penseroso, and Comus; either Burke's Speech on Conciliation with America or Macaulay's Life of Johnson.

In 1913 the examination will be based on the recommendations of the Conference on Uniform Entrance Requirements in English which met February 22, 1909. These recommendations are as follows: —

Preparation in English has two main objects: (1) Command of correct and clear English, spoken and written; (2) Ability to read with accuracy, intelligence, and appreciation.

### *English Grammar and Composition*

The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, paragraphs, and the different kinds of whole composition, including letter-writing, should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise narration, description, and easy exposition and argument based upon simple outlines. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

*Literature*

The second object is sought by means of two lists of books, headed respectively *reading* and *study*, from which may be framed a progressive course in literature covering four years. In connection with both lists the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages, both in verse and in prose. As an aid to literary appreciation he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

1. *Reading.* — The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature by giving him a first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from which at least ten units * are to be selected, two from each group: —

(*a*) The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; Virgil's Aeneid. The Odyssey, Iliad, and Aeneid should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

(*b*) Shakspere's Merchant of Venice; Midsummer Night's Dream; As You Like It; Twelfth Night; Henry the Fifth; Julius Caesar.

(*c*) Defoe's Robinson Crusoe, Part I; Goldsmith's Vicar of Wakefield; either Scott's Ivanhoe or Scott's Quentin Durward; Hawthorne's House of the Seven Gables; either Dickens's David Copperfield or Dickens's Tale of Two Cities; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; George Eliot's Silas Marner; Stevenson's Treasure Island.

(*d*) Bunyan's Pilgrim's Progress, Part I; The Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography (condensed); Irving's Sketch Book; Macaulay's Essays on Lord Clive and Warren Hastings; Thackeray's English Humourists; Selections from Lincoln, including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and Letter to Horace Greeley, along with a brief memoir or estimate; Parkman's Oregon Trail; either Thoreau's Walden, or Huxley's Autobiography and selections from Lay

* Each unit is set off by semicolons.

Sermons, including the addresses on Improving Natural Knowledge, A Liberal Education, and A Piece of Chalk; Stevenson's Inland Voyage and Travels with a Donkey.

(*e*) Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's Elegy in a Country Churchyard and Goldsmith's Deserted Village; Coleridge's Ancient Mariner and Lowell's Vision of Sir Launfal; Scott's Lady of the Lake; Byron's Childe Harold, Canto IV, and Prisoner of Chillon; Palgrave's Golden Treasury (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's Raven, Longfellow's Courtship of Miles Standish, and Whittier's Snow Bound; Macaulay's Lays of Ancient Rome and Arnold's Sohrab and Rustum; Tennyson's Gareth and Lynette, Lancelot and Elaine, and the Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa — Down in the City.

At a conference of certain colleges, upon request of representatives of the schools, the following books were selected for recommendation to the schools; the examination, however, will be based on the full list as printed above: —

The Old Testament; the Odyssey; Shakspere's As You Like It and Julius Caesar; Defoe's Robinson Crusoe, Part I; Scott's Quentin Durward; Selections from Lincoln; Macaulay's Lord Clive and Warren Hastings; Gray's Elegy Written in a Country Churchyard; Goldsmith's Deserted Village; Byron's Prisoner of Chillon; Arnold's Sohrab and Rustum.

2. *Study.* — This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. For this close reading are provided a play, a group of poems, an oration, and an essay, as follows: —

Shakspere's Macbeth; Milton's L'Allegro, Il Penseroso, and Comus; either Burke's Speech on Conciliation with America or both Washington's Farewell Address and Webster's First Bunker Hill Oration; either Macaulay's Life of Johnson or Carlyle's Essay on Burns.

*Examination*

However accurate in subject-matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

The examination will be divided into two parts, one of which may be taken as a preliminary, and the other as a final.

The first part of the examination will be upon ten units chosen, in accordance with the plan described earlier, from the lists headed *reading;* and it may include also questions upon grammar and the simpler principles

of rhetoric, and a short composition upon some topic drawn from the student's general knowledge or experience. On the books prescribed for reading, the form of the examination will usually be the writing of short paragraphs on several topics which the candidate may choose out of a considerable number. These topics will involve such knowledge and appreciation of plot, character-development, and other qualities of style and treatment as may be fairly expected of boys and girls. In grammar and rhetoric, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English which one should know in distinction from current errors.

The second part of the examination will include composition and those books comprised in the list headed *study*. The test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will be drawn from the books prescribed for *study*, from the candidate's other studies, and from his personal knowledge and experiences quite apart from reading. For this purpose the examiner will provide several subjects, perhaps five or six, from which the candidate may make his own selections. The test on the books prescribed for study will consist of questions upon their content, form and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

In place of the Harvard examination in Elementary English, a candidate may offer the following examinations of the College Entrance Examination Board: —

English: *a*. Reading and Practice. *b*. Study and Practice.

## Physics *

A course of study dealing with the leading elementary facts and principles of Physics, with quantitative laboratory work by the pupil.

The instruction given in this course should include qualitative lecture-room experiments, and should direct especial attention to the illustrations and applications of physical laws to be found in every-day life. The candidate is required to pass a written examination, the main object of which will be to determine how much he has profited by such instruction. This examination may include numerical problems. It will contain more questions than any one candidate is expected to answer, in order to make allowance for a considerable diversity of instruction in different schools.

* For rules relating to the time of handing in note-books and to candidates examined in June in places where no laboratory examination is provided, see page 24.

The candidate must name as the basis for his laboratory examination at least thirty-five exercises selected from a list of about sixty, described in a publication issued by the University under the title, "Descriptive List of Elementary Exercises in Physics." [*This list may be obtained, price 40 cents, at the Publication Office, 2 University Hall, Cambridge.*] In this list the divisions are mechanics (including hydrostatics), light, heat, sound, and electricity (with magnetism). At least ten of the exercises selected must be in mechanics. Any one of the four other divisions may be omitted altogether, but each of the three remaining divisions must be represented by at least three exercises.

The candidate is required to present a note-book in which he has recorded the steps and the results of his laboratory exercises, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain an index of the exercises which it describes. These exercises need not be the same as those upon which the candidate presents himself for the laboratory examination, but should be equivalent to them in amount and grade of quantitative work.

## Latin

The examination will be adapted to the proficiency of those who have studied Latin in a systematic course of five lessons a week, extending through at least *three* school years. The passages set for translation must be rendered into simple and idiomatic English. The three parts of the examination cannot be taken separately: —

(*a*) The translation at sight of simple Latin prose.

(*b*) An examination (which may include translation) on the first four books of Virgil's Aeneid, or on selected myths from Ovid's Metamorphoses, or on selected speeches of Cicero, with questions on the subject-matter and on literary and historical allusions. Two years' notice will be given of any change in these alternative requirements.

(*c*) An examination directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Latin prose.

## German

(*a*) The translation at sight of simple German prose. (The passages set for translation must be rendered into simple and idiomatic English.)

(*b*) The translation into German of simple English sentences, or of easy connected prose, to test the candidate's familiarity with elementary grammar.

The passages set for translation into English will be suited to the proficiency of candidates who have read not less than two hundred pages of easy German (including reading at sight in class).

Grammar should be studied concurrently with the reading as an indispensable means of ensuring thoroughness and accuracy in the understanding of the language. The requirement in elementary grammar includes

the conjugation of the weak and the more usual strong verbs; the declension of articles, adjectives, pronouns, and such nouns as are readily classified; the commoner prepositions; the simpler uses of the modal auxiliaries; the elements of syntax, especially the rules governing the order of words.

Pronunciation should be carefully taught, and the pupils should have frequent opportunities to hear German spoken or read aloud. The writing of German from dictation is recommended as a useful exercise.

## French

(*a*) The translation at sight of ordinary Nineteenth Century prose. (The passages set for translation must be rendered into simple and idiomatic English.)

(*b*) The translation into French of simple English sentences or of easy connected prose, to test the candidate's familiarity with elementary grammar. Proficiency in grammar may also be tested by direct questions, based on the passages set for translation under (*a*).

The passages set for translation into English will be suited to the proficiency of candidates who have read not less than four hundred pages (including reading at sight in class) from the works of at least three different authors. It is desirable that a portion of the reading should be from works other than works of fiction.

Grammar should be studied concurrently with the reading as an indispensable means of ensuring thoroughness and accuracy in the understanding of the language. The requirement in elementary grammar includes the conjugations of regular verbs, of the more frequent irregular verbs, such as *aller*, *envoyer*, *tenir*, *pouvoir*, *voir*, *vouloir*, *dire*, *savoir*, *faire*, and those belonging to the classes represented by *ouvrir*, *dormir*, *connaître*, *conduire*, and *craindre;* the forms and positions of personal pronouns and of possessive, demonstrative, and interrogative adjectives; the inflection of nouns and adjectives for gender and number, except rare cases; the uses of articles, and the partitive constructions.

Pronunciation should be carefully taught, and pupils should have frequent opportunities to hear French spoken or read aloud. The writing of French from dictation is recommended as a useful exercise.

## Chemistry

### Theoretical and Descriptive (Inorganic) Chemistry

The requirements in general chemistry include a knowledge of the common non-metallic elements, together with their more important compounds, also the sources and principal salts of common metals. Bradbury's, Long's, Storer and Lindsey's or similar text-books on General Chemistry sufficiently cover the ground. Experimental work performed by the student is highly desirable and strongly recommended.

## History (including Historical Geography)

Either of the two following groups, each including two fields of historical study, may be offered, but not both: —

1. *Greek and Roman History.* — (*a*) Greek History to the death of Alexander, with due reference to Greek life, literature, and art. (*b*) Roman History to the accession of Commodus, with due reference to literature and government.

2. *English and American History.* — (*a*) English History, with due reference to social and political development. (*b*) American History, with the elements of Civil Government.

For preparation in each of the two historical fields presented, a course of study equivalent to at least three lessons a week for one year will be necessary.

The candidate will be expected to show on examination such general knowledge of each field as may be acquired from the study of an accurate text-book of not less than 300 pages, supplemented by suitable parallel readings amounting to not less than 500 pages. The examination will call for comparison of historical characters, periods, and events, and in general for the exercise of judgment as well as of memory. Geographical knowledge will be tested by means of an outline map.

## Algebra

Algebra, through Quadratic Equations.

The requirement in Algebra includes the following subjects: factors, common divisors, and multiples, fractions, ratios and proportions; negative quantities and the interpretation of negative results; the doctrine of exponents; radicals, and equations involving radicals; the binomial theorem for positive integral powers of the binomial, and the extraction of roots; arithmetical and geometrical progressions; putting questions into equations and the reduction of equations; the ordinary methods of elimination and the solution of both numerical and literal equations of the first and second degrees with one or more unknown quantities and of problems leading to such equations.

## Geometry

Plane and Solid Geometry, including problems in mensuration of plane and solid figures, and original propositions in Plane Geometry.

The requirement in Geometry embraces the following topics: the general properties of plane rectilinear figures; the circle and the measure of angles; similar polygons; areas; regular polygons, and the measure of the circle; the relations of planes and lines in space; the properties and measure of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle. The propositions required under these several heads are those only which are contained in the older treatises, and which are recognized as constituting the Elements of Geometry. The examination does not include the additions introduced into some recent text-books, although most of those additions are in themselves valuable for the stu-

dent who has time and taste for extra study in this field. A syllabus of the required propositions has been prepared. [*This syllabus may be obtained, price 10 cents, at the Publication Office, 2 University Hall, Cambridge.*]

The examination in Geometry also includes original propositions in Plane Geometry, based on the propositions named in the syllabus, and problems in mensuration in both Plane and Solid Geometry; but excellence in book-work and in exercises immediately illustrating book-work will be allowed to offset in part any lack of skill in original work.

The time which it is recommended to assign to the systematic study of the requirement in Formal Geometry is the equivalent of a course of five lessons a week for one school year; but it is believed to be advisable to extend this allowance of time over two years.

### Plane Geometry

The requirement in Plane Geometry is stated on pages 1–14 of the Syllabus mentioned above.

### Solid Geometry

Chauvenet's Geometry, revised and abridged (Philadelphia: J. B. Lippincott & Co.), Books VI, VII, VIII, and IX, will serve to indicate the nature and amount of the requirement in Solid Geometry.

### Anatomy, Physiology, and Hygiene

A course of study and laboratory work equivalent to that described in a pamphlet entitled "An Outline of Requirements in Anatomy, Physiology, and Hygiene," issued by the University.

The candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the elements of Anatomy, Physiology and Hygiene. The laboratory examination will test (*a*) his ability to perform the experiments described in the Outline of Requirements, and (*b*) his knowledge of the first aids to be rendered to the injured.

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

### Botany and Zoölogy

*Botany.* — A course of study and laboratory work equivalent to that indicated in an "Outline of Requirements in Botany," issued by the University. The course should extend through at least half of a school year, with five lessons a week. The laboratory work is to be directed especially to the external anatomy and the activities of our common plants.

*Zoölogy.* — A course of study and laboratory work equivalent to that described in a pamphlet entitled "An Outline of Requirements in Zoölogy," issued by the University. The course should extend through at least half of a school year, with five lessons a week, and should include the laboratory study of at least ten types of animals, with special reference to their external anatomy and their activities. These types are to be selected in accordance with directions given in the pamphlet named.

In Botany and in Zoölogy the candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the subject. The laboratory examination will test his skill in observation and experimentation, and his ability to apply names properly to the parts of the organisms studied.

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

## Shopwork

A course of instruction in the use of tools and in the ordinary processes employed in the working of wood or metal, equivalent to that described in a pamphlet entitled "An Outline of Requirements in Shopwork," issued by the University. The course may embrace one or more of the following divisions: —

*Wood-working;*
*Blacksmithing;*
*Chipping, Filing, and Fitting;*
*Machine-tool Work.*

The candidate must be familiar with the names, construction, and operation of the tools commonly used in these processes, and will be expected to read ordinary mechanical drawings and to make freehand sketches of articles which are to be produced in the workshop.

The candidate is required to pass both a written and a laboratory examination. The written examination will test his knowledge of tools and mechanical processes, and of the properties of materials of common use in construction. He will be expected to show familiarity with approved methods for simple work in the branch in which he presents himself for examination, and to write an intelligible description of those methods, illustrated by such sketches as may be necessary to make them clear. The laboratory examination will test the candidate's skill in the use of tools. He will receive the materials and specifications for a piece of work, and will be expected to select his tools, preparing them for use if necessary, and to demonstrate satisfactorily his knowledge and skill.

Every candidate is further required to present the original note-book in which he entered the descriptions and sketches of the work he performed

at school; and with this he may present, as evidence of his skill in the workshop, the models made by him at school. Both the note-book and the models must be accompanied by the endorsement of his teacher, certifying that the book is a true record, and that the models are specimens of the pupil's own work.

### College Entrance Examination Board

In June, 1910, papers of the College Entrance Examination Board may be substituted for corresponding papers set for the separate admission examinations held by Harvard University, but no candidate may offer both Harvard and Board examinations in the same subjects. For more particular information apply to Mr. J. G. Hart, Secretary, 20 University Hall, Cambridge.

The examinations of the Board will be held June 20–25, 1910. Applications to attend the Board's examinations must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, N.Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application.

Applications for examination at points in the United States east of the Mississippi River must be received by the Board at least two weeks in advance of the examinations, that is, on or before Monday, June 6, 1910; applications for examination elsewhere in the United States or in Canada must be received at least three weeks in advance of the examinations, that is, on or before Monday, May 30, 1910; and applications for examination at points outside the United States and Canada must be received at least five weeks in advance of the examinations, that is, on or before Monday, May 16, 1910.

Applications received later than the dates named will be accepted when it is possible to arrange for the examinations of the candidates concerned, but only upon the payment of $5.00 in addition to the usual examination fee.

The examination fee is $5.00 for all candidates examined at points in the United States and Canada, and $15.00 for all candidates examined at points outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York, to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be addressed to the Secretary of the Board not later than February 1.

## REGISTRATION

The academic year 1910–11 begins on Thursday, September 29, 1910. All students register at the Dental School, Longwood Avenue, on that day at 9 A.M.

## ARRANGEMENT OF STUDIES

The following is the plan of study in the successive years of the School: —

*First Year.* — Anatomy-dissection, Physiology, Histology and Embryology; Physiological, Pathological, and Dental Chemistry, and Metallurgy.

*Second Year.* — Oral Pathology, Operative Dentistry, Oral Surgery, Prosthetic Dentistry, and Orthodontia; Porcelain Work; General and Dental Materia Medica and Therapeutics; Bacteriology; Crown and Bridge Work; practical work daily in the mechanical laboratory and in the operative infirmary.

*Third Year.* — Operative Dentistry, Oral Surgery, Prosthetic Dentistry, Orthodontia, Porcelain Work, Neurology, Surgical Pathology and Surgery, Crown and Bridge Work; Dental Jurisprudence; practical work in operative infirmary and prosthetic laboratory.

## METHODS OF INSTRUCTION

### Anatomy

NOTE. — The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

THOMAS DWIGHT, M.D., LL.D., *Parkman Professor of Anatomy.*
JOHN WARREN, M.D., *Assistant Professor of Anatomy.*
DAVID CHEEVER, M.D., *Demonstrator of Anatomy.*
HARRIS P. MOSHER, M.D., *Instructor in Anatomy.*
ELISHA FLAGG, M.D., *Assistant in Anatomy.*
ZABDIEL B. ADAMS, M.D., *Assistant in Anatomy.*
J. DELLINGER BARNEY, M.D., *Assistant in Anatomy.*
JOHN B. HARTWELL, M.D., *Assistant in Anatomy.*
ROBERT M. GREEN, M.D., *Assistant in Anatomy.*

The course in anatomy occupies the mornings in October, November, and December, and both mornings and afternoons in January. The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model.

The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

*Text-books.*— Piersol. Cunningham. Gray. Quain. Morris. Gerrish.

*Collateral Reading.* — Dwight, Clinical Atlas of Variations of Hands and Feet. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Sobotta McMurrich, Atlas and Text-book of Human Anatomy. Testut, Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Corning, Lehrbuch der Topographischen Anatomie. Tillaux, Anatomie Topographique.

### First Year

*October* HOURS

Lectures. Professor Dwight. *Seven hours weekly.* 28

Study of bones and joints. *Three hours daily for first two weeks.* 33

Demonstrations. Dr. Cheever. *Four times a week to sections of the class for last two weeks.* 12

Practical anatomy with recitations. *Three hours a day, five times a week for last two weeks.* 30

*November and December*

Lectures. Professor Dwight. *Three hours a week.* 24

Demonstrations. Drs. Warren and Cheever. *Four times a week to sections of the class.* 24

Practical anatomy with recitations. *Three hours a day, five times a week.* 60

*January*

Lectures and demonstrations. Dr. Warren. *Daily.* 24

Demonstrations. Dr. Cheever. *Four times a week to sections of the class.* 24

Practical anatomy with recitations. *Three to six hours a day, five times a week.* 80

Demonstrations and study of the brain and organs of sense. *Three hours a day, five times a week for two and a half weeks.* 40

## Comparative Anatomy

Charles S. Minot, S.D., LL.D., D.Sc., *James Stillman Professor of Comparative Anatomy.*

Frederic T. Lewis, M.D., *Assistant Professor of Embryology.*

John L. Bremer, M.D., *Demonstrator of Histology.*

Leonard W. Williams, Ph.D., *Instructor in Comparative Anatomy.*

Luther D. Shepard, Jr., M.D., D.M.D., *Instructor in Dental Histology.*

Richard E. Scammon, Ph.D., *Instructor in Histology and Embryology.*

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Franklin P. Johnson, A.B., *Austin Teaching Fellow in Histology and Embryology.*

### *LABORATORY*

The laboratory comprises the whole southeast wing of the new Morgan Anatomical Building. There are unit rooms for class work, each of which measures twenty-three by thirty feet, well lighted, and thoroughly equipped. Each unit room is designed for twenty-four elementary or twelve advanced students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about eight thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for all kinds of work in human histology and embryology, and in comparative anatomy.

The Embryological Collection is a unique feature of the laboratory. It comprises over fifteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes fifty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet known.

### *REGULAR COURSES*

This course is intended to teach the normal histology of the human body. It deals with the cells, tissues, and organs from the developmental standpoint. After a brief consideration of the cell, the fertilization and segmentation of the ovum are taken up as an introduction to the study of the chick embryo of 36 hours and the pig embryo of 20 days. In this work special stress is laid on the origin and growth of the different organs. During the remainder of the course the various tissues and organs are

studied in succession, special attention being given to organogeny. With the work on the uterus, the human placenta and fetal membranes are given special emphasis.

*Microscope and Laboratory Fees.* — Every student is advised to purchase a microscope, but microscopes may be rented for four dollars a term, or five dollars for the whole first-year work. Each regular student is charged a laboratory fee of three dollars.

*Text-books.* — Stöhr's Histology, 6th edition, edited by F. T. Lewis. Minot, Laboratory Text-book of Embryology.

*Collateral Reading.* — Kölliker, Gewebelehre. Minot, Human Embryology. Hertwig, Handbuch der Entwickelungslehre der Wirbeltiere.

### First Year

*October, November, December*

Lectures. Professor Minot, Drs. Bremer and Lewis. *One half-hour, five times a week.* 30
Laboratory work. *Three and one-half hours, five times a week.* 210
Quiz. *Two hours, once a week.* 24

### *INVESTIGATION*

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

## Physiology

Walter B. Cannon, M.D., *George Higginson Professor of Physiology.*
Ernest G. Martin, Ph.D., *Instructor in Physiology.*
Edward B. Meigs, M.D., *Instructor in Physiology.*

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Roy G. Hoskins, A.M., *Teaching Fellow in Physiology.*

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Eugene L. Porter, A.M., *Austin Teaching Fellow in Physiology.*

The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement

of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately two hundred hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised from day to day.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase. and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis based upon reading of the records of original investigations is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. There is insufficient time for presenting before the class all the theses written each year. Certain theses of special importance in relation to the regular instruction, between forty-five and fifty in number, are chosen to be presented. In each case two students beside the reader of the thesis are selected to be prepared in some phase of the literature of the subject. These students, after the reading of the thesis, lead the discussion, which is continued by members of the class and the staff. Among the theses read publicly during the past academic year were: Theories of muscular contractility, Color-blindness, Heart-block, Haemolysis, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is divided into sections and quizzed orally every week by the instructing staff. At the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization. The examination books are returned, corrected, to the students.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the charac-

ter of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

*Text-books.* — No special text-book is required, but the following books are recommended for reading in connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbuch der Physiologie. Nagel, Handbuch der Physiologie.

| | HOURS |
|---|---|
| Laboratory experiments. Professor CANNON, Drs. MARTIN and MEIGS, and Messrs. HOSKINS and PORTER. *Daily.* | 210 |
| Quizzes (15). *One hour Saturdays.* | 15 |
| Written tests (8). *One hour Mondays.* | 8 |
| Lectures (90). Professor CANNON, and Drs. MARTIN and MEIGS. | 90 |
| Special demonstrations (32). Professor CANNON, and Drs. MARTIN and MEIGS. | 16 |
| Discussion of Theses (50). | 38 |

Thesis. Written by each student from the original sources.

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

*INVESTIGATION*

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

## Comparative Physiology

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

*GRADUATE COURSES*

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of Professor W. T. PORTER.

II. *Comparative Physiology of Muscle.* Professor PORTER. Three hours weekly during February and March.

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 P.M., throughout the year.

## Dental and Physiological Chemistry

H. Carlton Smith, Ph.G., *Lecturer on Dental Chemistry.*

This course aims to make practical application of the various branches of chemical science to meet the requirements of the student of Dental Medicine.

Particular attention is given to the study of saliva and urine and, as far as possible, to the determination of relations which may exist between these fluids and pathological conditions of interest in dental practice.

During the first year this work includes laboratory methods, analysis, etc., and forms a part of the course in Physiological Chemistry.

In the second year the entire time is devoted to the study of urine and saliva. The samples for analysis are obtained from infirmary patients and whenever practicable from the same patient for whom the student is doing actual dental work.

The analyses of urine are studied particularly from a standpoint of body metabolism, and considered with the analyses of saliva and conditions found in the mouth. A comprehensive basis is thus furnished for the study of cause and effect and general information is obtained essential to the undertaking of subsequent investigation of an original character. Research work is encouraged and opportunities for special investigation will be offered such students as can give the necessary time in the laboratory.

The Dental Chemistry includes instruction in blow-pipe work, the principles of volumetric analysis, and the assay of dental alloys; also microchemical tests, with special reference to the examination of local anaesthetics and antiseptics; the chemistry of the teeth, salivary calculus and saliva.

The Physiological Chemistry includes a short introductory course in Organic Chemistry sufficient for an intelligent consideration of the composition of the carbohydrates and protein, their relationship, chemical properties, and methods of precipitation and separation; also the chemistry of digestion, of the different tissues, fat, muscle, etc., of bile, lymph, milk, and urine.

*Text-books.* — Chemistry for Dental Students, Smith. Dental Metallurgy, Essig. Practical Physiological Chemistry, Hawk. Examination of the Urine, Saxe.

*Collateral Reading.* — Medical Chemistry and Toxicology, Holland. Physiological Chemistry, Hammarsten or Novy. Halliburton, Text-book of Chemical Physiology and Pathology. Simon, Physiological Chemistry, Bunge, Physiologic and Pathologic Chemistry. Gamgee, Physiological Chemistry of the Animal Body. Lea, Chemical Basis of the Animal Body (appendix to Foster's Text-book of Physiology). Vaughan and Novy,

Cellular Toxins. Diseases of Metabolism and Nutrition, by Dr. Carl von Noorden. The Principles of Animal Nutrition, Armsby. Mitchell's Dental Chemistry. Dorland's American Illustrated Medical Dictionary.

First Year

Lectures. Mr. Smith. *Five times a week throughout the second half of the first year.* 75

Demonstrations or Laboratory Experiments. Mr. Smith. *Three hours a day, five times a week.* 225

Second Year

Lectures. Mr. Smith. *Five times a week for two weeks.* 10

Laboratory Experiments. Mr. Smith. *Two and one-half hours a day, five times a week.* 25

## Bacteriology

Harold C. Ernst, M.D., *Professor of Bacteriology.*
Langdon Frothingham, M.D.V., *Instructor in Bacteriology.*
Calvin G. Page, M.D., *Assistant in Bacteriology.*
Henry J. Perry, M.D., *Assistant in Bacteriology.*
Arthur M. Worthington, M.D., *Assistant in Bacteriology.*
Eugene E. Everett, M.D., *Assistant in Bacteriology.*
Edward N. Tobey, M.D., *Assistant in Bacteriology.*

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Cleaveland Floyd, M.D., *Austin Teaching Fellow in Bacteriology.*

Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

*Text-books.* — Muir and Ritchie. Abbott. Park.

*Collateral Reading.* — Sternberg. Heim. Migula. Kolle and Wassermann.

Lectures. Professor Ernst. *Daily, except Saturdays, during October and November.* 40

Laboratory work. Professor Ernst, and Drs. Frothingham, Page, Perry, Tobey, Everett, and Worthington. *Two to three hours daily during October and November.* 120

## Operative Dentistry

Eugene H. Smith, D.M.D., *Professor of Clinical Dentistry and Orthodontia.*
William H. Potter, D.M.D., *Professor of Operative Dentistry.*
Albert B. Jewell, D.M.D., *Instructor in Operative Dentistry.*
Timothy O. Loveland, D.M.D., *Instructor in Operative Dentistry.*
Forrest G. Eddy, D.M.D., *Instructor in Operative Dentistry.*
Edwin C. Blaisdell, D.M.D., *Instructor in Operative Dentistry.*
Ned A. Stanley, D.M.D., *Instructor in Operative Dentistry.*
Joseph T. Paul, D.M.D., *Instructor in Operative Dentistry.*
James A. Furfey, D.M.D., *Instructor in Operative Dentistry.*
Marquis D Littig, D.D.S., D.M.D., M.D., *Instructor in Operative Dentistry.*
Edwin L. Farrington, D.M.D., *Instructor in Extracting and Anaesthesia.*
William D. Squarebrigs, D.M.D., *Instructor in Extracting and Anaesthesia.*
Samuel T. Elliott, D.M.D., *Instructor in Operative Dentistry.*
Albert L. Midgley, D.M.D., *Instructor in Extracting and Anaesthesia.*
Charles G. Pike, D.M.D., *Instructor in Operative Dentistry.*
Melville F. Rogers, D.M.D., *Instructor in Operative Dentistry.*
Robert Whitehill, D.M.D., *Instructor in Operative Dentistry.*
Harry B. Shuman, D.M.D., *Instructor in Oral Surgery and Roentgenology.*
Harry A. Stone, D.M.D., *Instructor in Extracting and Anaesthesia.*
Martin B. Dill, D.M.D., *Lecturer on Operative Dentistry.*
Leroy M. S. Miner, D.M.D., M.D., *Instructor in Oral Surgery.*
Eugene B. Wyman, D.M.D., *Demonstrator of Operative Dentistry.*
Earle C. Cummings, D.M.D., *Assistant in Roentgenology.*
Charles E. Stevens, D.M.D., *Instructor in Operative Dentistry.*
William H. Gilpatric, D.M.D., *Instructor in Extracting and Anaesthesia.*
Harold B. Norwood, D.M.D., *Instructor in Extracting and Anaesthesia.*
Ernest V. L. Whitchurch, D.M.D., *Instructor in Operative Dentistry.*
Otis S. Smith, D.M.D., *Assistant in Operative Dentistry.*
Nathan A. Estes, D.M.D., *Assistant in Operative Dentistry.*

The instruction in this department is distributed over the second and third years. In the second year there is one lecture each week. These lectures deal first with the elemental principles of operative dentistry and then with the application of these principles to the simpler forms of operative work. Practical work is carried on six mornings in the week

during the year. The student is first required to arrange extracted teeth in a metal model which imitates the shape of the jaws. Upon teeth thus mounted a variety of operations is performed. Thus familiarity with instruments, and ability in their use is developed. When a student has acquired operative ability by work upon the model, he is given patients. Upon these patients he performs at first the simpler operations, then the more difficult ones. In the course of the year all the more usual operations are performed.

In the third year there is one lecture each week. These lectures deal with extraction and anaesthesia and with advanced processes in operative dentistry. They are arranged so as to be a natural continuation of the lectures of the second year. Practical work is carried on five afternoons in the week, and students are required to satisfactorily perform all the accredited operations belonging to the practice of dentistry. During both the second and third years instruction is given six days in the week in extraction and anaesthesia, and students are required to fully qualify themselves in this department.

During the entire summer vacation the extracting, anaesthesia, and oral surgery clinics are continued, and students have opportunities to do a large amount of voluntary work.

*Clinical Lectures on Operative Dentistry.* — These exercises are intended to demonstrate the individual methods of the lecturers. They include brief lectures, the exhibition of models, and practical operations upon patients.

*Text-books.* — Black, Operative Dentistry. American Text-Book of Operative Dentistry. American System of Dentistry. Marshall, Oral Surgery. Marshall, Operative Dentistry. Johnson, Principles and Practice of Filling Teeth. Hewitt, Anaesthetics and Their Administration. Le Fevre, Physical Diagnosis.

Lectures. Professor POTTER. *Once a week throughout the third year.* 30
Dr. DILL. *Once a week throughout the second year.* 30

Clinical Demonstrations. Professor E. H. SMITH. *Two hours each week throughout the third year.*

Practical work. Drs. BLAISDELL, JEWELL, LOVELAND, EDDY, STANLEY, PAUL, FURFEY, LITTIG, ELLIOTT, PIKE, WHITEHILL, WYMAN, STEVENS, WHITCHURCH, O. S. SMITH, and ESTES. *Fifteen hours a week, throughout the second and third years.* 960

Extracting Clinics. Drs. FARRINGTON, SQUAREBRIGS, MIDGLEY, STONE, GILPATRIC, and NORWOOD. *Two hours a day, throughout the second and third years.* 720

Lectures. Oral Surgery and Roentgenology. Dr. Shuman. *Once a week for eight weeks.* 8

Clinics. Drs. Shuman and Miner. *Two to three hours, once a week.* 60

Samaritan Hospital Clinic. Dr. M. F. Rogers. *Three hours, once a month, throughout the third year.* 27

## Prosthetic Dentistry

William P. Cooke, D.M.D., *Professor of Prosthetic Dentistry.*

Harold DeW. Cross, D.M.D., *Assistant Professor of Prosthetic Dentistry.*

Arthur W. Eldred, D.M.D., *Instructor in Prosthetic Dentistry.*

Thomas B. Hayden, D.M.D., *Instructor in Prosthetic Dentistry.*

Ernest H. Chute, D.M.D., *Instructor in Prosthetic Dentistry.*

Harry W. Haley, D.M.D., *Instructor in Prosthetic Dentistry.*

Horace A. Davis, D.M.D., *Instructor in Prosthetic Dentistry.*

John W. Estabrooks, D.M.D., *Instructor in Prosthetic Dentistry.*

Wilson C. Dort, D.M.D., *Instructor in Prosthetic Dentistry.*

Leo A. Rogers, D.M.D., *Instructor in Prosthetic Dentistry.*

Herbert F. Langley, D.M.D., *Instructor in Prosthetic Dentistry.*

William H. Weston, D.M.D., *Instructor in Prosthetic Dentistry.*

Harry S. Clark, D.M.D., *Instructor in Prosthetic Dentistry.*

Frank LeR. Eames, D.M.D., *Instructor in Prosthetic Dentistry.*

Julius F. Hovestadt, D.M.D., *Instructor in Prosthetic Dentistry.*

John A. Furbish, D.M.D., *Instructor in Prosthetic Dentistry.*

Varaztad H. Kazanjian, D.M.D., *Demonstrator of Prosthetic Dentistry.*

Fred A. Beckford, D.M.D., *Instructor in Prosthetic Dentistry.*

Maurice E. Peters, D.M.D., *Instructor in Prosthetic Dentistry.*

Lectures and demonstrations to the second and third class in sections followed by practical work in the laboratory : the manner in which mineral teeth are constructed, the principles and method of carving and furnace-work, and all compounds used for artificial teeth; and the manner in which gold and silver plates are prepared and adapted to the mouth; the use of rubber and other articles as bases. It is the aim to teach not only the mere mechanical processes of Dentistry, but that combination of art with mechanism which enables the practitioner to effect so much in restoring the symmetry of the face and usefulness of the teeth, where they have been lost or impaired by accident or disease.

Lectures. Asst. Professor Cross. *Once a week, throughout the second and third years.* 60

Practical work. Asst. Professor Cross, Drs. Hayden, Chute, Haley, Davis, Dort, Langley, Weston, Clark, Eames, Furbish, L. A. Rogers, Kazanjian, Beckford, and Peters. *Eighteen hours a week, throughout the second and third years.* 1080

### Crown and Bridge Work

Lectures and demonstrations. Professor Cooke. *Once a week, alternately, throughout the second and third years.* 30

Demonstrations. Drs. Eldred, Estabrooks, and Hovestadt. *Three hours each week.* 90

*Text-books.* — Essig, American Text-book of Prosthetic Dentistry. Richardson, Mechanical Dentistry. Turner's Prosthetic Dentistry. Kingsley, Oral Deformities. Harris, Principles and Practice. Harris, Dictionary of Dentistry. Evans, Crown and Bridge Work. Goslee, Principles and Practice of Crowning Teeth.

### Orthodontia

Eugene H. Smith, D.M.D., *Professor of Clinical Dentistry and Orthodontia.*

Lawrence W. Baker, D.M.D., *Instructor in Orthodontia.*

Horace L. Howe, D.M.D., *Instructor in Orthodontia.*

*Orthodontia* is taught by lectures and by practical work in the Infirmary. During the first half of the second year, through lectures and demonstrations, the students are made familiar with the principles of normal occlusion and the various apparatus for the correction of irregularities. This is followed during the second half of the year by lectures and recitations on etiology. In the third year each student is obliged to take not less than two cases of irregularities and carry them to completion under the direction of the Professor in charge and his assistants. On Tuesday and Friday afternoons, conferences are held on the cases under treatment. Lectures are also given which treat of the diagnosis and treatment of the various forms of malocclusion.

*Text-books.* — Farrar, Irregularities of the Teeth. Talbot, Irregularities. Guilford, Orthodontia. Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxillae.

Lectures. Professor Smith. *Once a week throughout the third year.* 30

Clinics. Drs. Baker and Howe. *Three hours a week throughout the third year.* 90

## Porcelain Work

Robert T. Moffatt, D.M.D., *Instructor in Porcelain Work.*
Amos I. Hadley, D.M.D., *Instructor in Porcelain Work.*

Demonstrations in continuous gum and inlay work in the mechanical laboratory and infirmary. Also demonstrations of methods of carving and enameling porcelain teeth and crowns, and use of paint and mineral stains, together with the making of bodies and enamels.

*Text-books.* — Gilbert, Notes on Dental Porcelain. Bruck, The Filling of Teeth with Porcelain. Peck, Porcelain Inlays.

Lectures and Clinics. Dr. Hadley. *Four hours a week, throughout the third year.* 120

Clinical Lectures. Dr. Moffatt. *Three hours a week for four weeks, during second half of the second year.* 12

## Surgery, Surgical Pathology, and Oral Surgery

George H. Monks, M.D., M.R.C.S., *Lecturer on Surgery.*
John Bapst Blake, M.D., *Instructor in Surgery.*

Lectures embracing the general subjects of inflammation, suppuration, ulceration, gangrene, necrosis, erysipelas, septicemia, pyemia, shock, repair, etc.; and special subjects which more particularly concern Oral Surgery. These lectures will be illustrated, so far as possible, by diagrams, by demonstrations of pathological specimens, and by exhibition of clinical cases at the Boston City Hospital. Instruction will be given in the use of anaesthetics.

*Text-books.* — American Text-book of Surgery. Warren, Surgical Pathology. Grant, Surgical Diseases of the Face, Mouth, and Jaws.

Lectures. Dr. Monks. *Once a week for eleven weeks.* 11

Clinics. Dr. Blake. *Once a week for two months, at the Boston City Hospital.* 8 or 9

## Operative Surgery

Operations are performed before the students one day each week throughout the year in the Amphitheatres at the Massachusetts General Hospital and the Boston City Hospital.

The surgical cases at the Eye and Ear Infirmary and at the Boston Dispensary are shown by the surgeons in charge.

## Oral Hygiene

George H. Wright, D.M.D., *Lecturer on Oral Hygiene.*

Lectures and Clinical Instruction during the third year. *Massachusetts General Hospital.*

## Syphilis

C. Morton Smith, M.D., *Instructor in Syphilis.*

Second and third years. Lectures and Clinical Instruction.

## Dental Pathology

Charles A. Brackett, D.M.D., *Professor of Dental Pathology.*

In the beginning of the course of lectures the general principles of Pathology, including Etiology, Nosology, Semeiology, Diagnosis, and Prognosis, are outlined. The various pathological conditions in their relations to one another and their modifications of structure and function are taught. This prepares the way for the special pathology of the region with which the dentist has most to do. The diseases of the dental and contiguous tissues are considered in detail, with reference to their nature, causes, manifestations and terminations, and their relations with systematic conditions. The lectures will be supplemented with clinical demonstrations of pathological conditions.

*Text-books.* — Barrett, Oral Pathology and Practice. Miller, Micro-organisms of the Human Mouth.

*Collateral Reading.* — Warren, Surgical Pathology and Therapeutics. Burchard, Dental Pathology, Therapeutics, and Pharmacology.

Lectures. Professor Brackett. *Once a week.* 30

## Materia Medica and Therapeutics

Edward C. Briggs, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics.*

Lectures, recitations, and demonstrations of crude drugs and their preparations. This is a complete course, as taught in the Medical School to medical students. Remedies are classified, however, to meet the special requirements of the dental practitioner, and the student is particularly instructed upon those remedies which, as a specialist, he will be called upon most to use.

*Text-books.* — Potter, Materia Medica, Pharmacy, and Therapeutics. Wood, Therapeutics, Materia Medica, and Toxicology. Butler, Materia Medica, Pharmacology, and Therapeutics. Stevens, Materia Medica and Therapeutics.

*Collateral Reading.* — Hare, Practical Therapeutics. Thompson, Dietetics.

Lectures. Professor Briggs. *Once a week throughout the second year.* 30

## Neurology

EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*

A course of four lectures on Neurology will include a brief review of the anatomy and physiology of the nervous system, the anatomy of the trifacial nerve being made the subject of special study.

The nervous disturbances liable to be set up by dental irritation, and, conversely, those likely to produce odontalgia, will be considered as fully as the limited nature of the course permits, special attention being paid to trifacial neuralgia.

Lectures. Dr. TAYLOR. *Once a week for four weeks.* 4

To be followed by clinics at the Massachusetts General Hospital.

## CLINICAL ADVANTAGES

The Dental School is established in Boston in order to secure those advantages for Clinical Instruction which are found only in large cities.

The clinics of the Dental Hospital afford a sufficient number of patients to give each student abundant practice in all branches of Dentistry throughout the year.

Each student is assigned a chair in the Operative Department and is required to operate three hours a day, five days each week, giving him during each year 480 hours of practice.

Each student is assigned a bench in the Prosthetic Department and is required to work three hours a day for six days each week, giving him 576 hours of practice each year.

*Dental Statistics.* — For the year 1908–09 :

Operative Department : —

| | |
|---|---|
| No. of patients treated | 6,074 |
| " " " for diseases of the teeth and gums | 1,558 |
| " " " for pyorrhoea alveolaris | 51 |
| " sets of teeth cleaned | 921 |
| " operations | 13,731 |
| " fillings — gold | 1,434 |
| " " amalgam | 2,007 |
| " " cement | 933 |
| " " gutta percha | 1,832 |
| " " enamel | 202 |
| " " combinations | 61 |

Surgical cases: —

| | |
|---|---|
| Necrosis | 14 |
| Alveolar cysts | 6 |
| " abscess | 13 |
| Osteoma | 2 |
| Non-erupted teeth | 2 |
| Removal of cicatricial tissue | 4 |
| Septic sockets | 4 |
| Impacted lower third molars | 5 |
| Periostitis | 13 |
| Resection of superior maxilla | 3 |
| Post-extraction adenitis | 2 |
| Empyema (antrum) | 8 |
| Epulis | 11 |
| Stomatitis | 6 |
| Sarcoma | 4 |
| Tri-facial Neuralgia | 1 |
| Fistulae | 3 |
| Bursitis | 2 |
| Plastic Operations | 6 |
| Ankylosis | 2 |

Roentgen Ray.

| | |
|---|---|
| No. of radiographs | 90 |

Inlay work. — Service to patients.

| | |
|---|---|
| No. of porcelain inlays | 35 |
| " gold inlays | 14 |

Inlay work. — Practice work.

| | |
|---|---|
| No. of porcelain inlays | 78 |

Prosthetic department. — Service to patients.

| | |
|---|---|
| No. of sets of artificial teeth | 123 |
| " " " " repaired | 102 |
| " partial sets of artificial teeth | 83 |

Prosthetic Laboratory. — Practice work.

| | |
|---|---|
| No. of specimen plates | 112 |

Fractured Jaws. — Service to patients.

| | |
|---|---|
| No. of cases treated | 37 |
| " appliances | 39 |

Artificial Palates. — Service to patients.

| | |
|---|---|
| No. of cleft palates treated | 8 |
| " obturators | 3 |
| " cleft palate appliances | 9 |
| " artificial noses | |

Orthodontia. — Service to patients.

| | |
|---|---|
| No. of patients treated for irregularities of the teeth | 102 |
| " appliances | 180 |
| " articulated models of regulating cases | 119 |

Orthodontia. — Practice work.

| | |
|---|---|
| No. of articulated models of regulating cases | 18 |
| " regulating appliances | 36 |

Crown and Bridge Work. — Service to patients

| | |
|---|---|
| No. of crowns and caps | 127 |
| " " repaired | 13 |
| " pieces of bridge work | 40 |
| " pieces of bridge work repaired | 22 |

Crown and Bridge Work. — Practice work

| | |
|---|---|
| No. of crowns and caps | 72 |
| " bridges | 54 |
| " carved teeth models | 20 |

*The Massachusetts General Hospital.* — During the past year, more than fifty-five hundred patients were treated in the wards, and there were over one hundred and seven thousand visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, and Diseases of the Nervous System.

*The Boston City Hospital.* — During the past year, about thirteen thousand, five hundred cases were treated in its wards, and there were over one hundred and sixty-three thousand visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred streets accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence

of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

*The Boston Dispensary.* — More than one hundred and seven thousand visits were made by patients at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

*The Massachusetts Charitable Eye and Ear Infirmary.* — Over seventy-eight thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

## LIBRARIES AND MUSEUMS

The College Library at Cambridge is open to students, and also the Library of the Boston Medical Library Association, which has a dental section containing a large and very complete collection of dental literature. It includes the libraries of the American Academy of Dental Science and the Massachusetts Dental Society. There is a good reference library of modern books, including encyclopaedias, systems, etc. The Library is open daily except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August.

The Dental School Library for reference only also contains about one thousand well selected volumes to which the students and graduates of the School have free access.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this Library.

The Boston Medical Library, No. 8 The Fenway, contains about 65,000 bound volumes and 35,000 pamphlets, and nearly 700 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

The Dental Museum is in charge of Dr. Waldo Elias Boardman, *Curator*. It contains over 3500 specimens, and offers unusual facilities for study of the teeth. The pathological anatomy of the teeth is shown

by more than 2000 specimens, among which are over 200 dissected teeth showing formations of secondary dentine in the pulp cavity, and also many other rare specimens of great value. There are 700 other specimens of human and comparative anatomy, illustrating a wide range of knowledge.

## FELLOWSHIPS AND SCHOLARSHIPS

The Frederick Sheldon Fund for Travelling Fellowships; the University received in 1909 the sum of three hundred and forty-six thousand four hundred and fifty-eight dollars and seventy cents from the residuary bequest of Mrs. Amey Richmond Sheldon, to establish, in memory of Mrs. Sheldon's husband, a member of the Class of 1842, the Frederick Sheldon Fund, "the income thereof to be applied in the discretion of and under rules to be prescribed by the President and Fellows . . . to the further education of students of promise and standing in the University by providing them with facilities for further education by travel after graduation or by establishing travelling scholarships." The income of this fund is at present about fifteen thousand dollars.

By a vote of the President and Fellows, a Committee of seven persons has been appointed to administer the Frederick Sheldon Fund for travelling scholarships. The income is not to be assigned in scholarships of fixed amounts, but "on recommendation to the Committee from the various Departments and Schools, to be assigned as the Committee shall deem most expedient for purposes of investigation or study either in this country — outside Harvard University — or abroad."

The Committee consists of the Deans of the Faculty of Arts and Sciences, the Graduate School of Arts and Sciences, the Graduate School of Applied Science, the Graduate School of Business Administration, the Divinity School, the Law School, and the Medical School.

Application in behalf of a student in any School, Division, or Department of the University must be made through the Dean or Chairman of that School, Division, or Department, to the Chairman of the Committee, Dean L. B. R. Briggs, and may be made at any time.

The W. Graham Bowdoin, Jr., Scholarship; with an income of two hundred and fifty dollars, "to be awarded each year to a deserving student from the State of Maryland, who may be registered in any department of the University. In the event of there being no student at the University from the State of Maryland eligible for it, this scholarship may be awarded to any deserving undergraduate student." In October, 1909, Mr. W. Graham Bowdoin, Jr., offered to maintain this scholarship "to continue for an indefinite period, and appointment thereto is to be made by the Committee on Scholarships, subject to my approval."

The Charles Elliott Perkins Scholarships; three undergraduate scholarships and one graduate scholarship, with an income of three hundred dollars each. In 1909, thirty thousand dollars was received from Mrs. Charles Elliott Perkins, of Burlington, Iowa, "in trust for the establishment of scholarships in Harvard University for students from Iowa, the scholarships to be forever known and designated as the 'Charles Elliott Perkins Scholarships.'

". . . . It is my desire that the benefits of this foundation shall be open to those desiring a so-called classical or liberal education, and to those desiring to fit themselves for the professions; and especially that young men who intend to pursue technical studies in preparation for a career in business or engineering may be encouraged by these scholarships to precede their technical studies, or combine them, with such liberal studies as shall contribute to their breadth of view, sympathy with all humane interests, and capacity for ultimate leadership. In fulfilment of the purpose above described, I desire the income of the fund to be divided among four or more scholarships, in accordance with the following terms: —

"I. One undergraduate scholarship of at least $300, to be offered annually to bona fide residents of Des Moines County upon graduation from the Burlington High School. . . . If no award is made, or the recipient fails to be admitted, the income is to be added to the principal.

"II. Two undergraduate scholarships of $300 each, to be offered annually to students from Iowa high schools. . . .

"III. One graduate scholarship of $300, to be offered each year to a graduate of an Iowa college or university in any of the graduate or professional departments of Harvard University.

"In case the income of the fund should be more than sufficient to pay the stipends above mentioned, the President and Fellows may, at their discretion, add such excess of income to the principal, or increase the amount of the stipends, or create additional scholarships for Iowa students. I hope that if the stipends of the undergraduate scholarships are increased, the maximum stipend will be given to the Burlington Scholarship. . . .

"In making the foregoing statements of my wishes and intentions, I desire to impose as absolute requirements, —

"First. The name of the scholarships.

"Second. The limiting of the recipients to Iowa boys.

"Third. The maintenance of at least one scholarship available only to bona fide residents of Des Moines County graduating from the Burlington High School, or the public school which takes its place.

"I hope that the President and Fellows will be governed in other particulars by my expressed wishes, but, realizing that conditions may change

in the future, I impose no further trust than is set out in the preceding paragraph, leaving it to the discretion of the President and Fellows to see to it that the scholarships are assigned in such manner from year to year, and from generation to generation, as shall best serve the interest of the State of Iowa."

## WARREN ANATOMICAL MUSEUM IN THE MEDICAL SCHOOL

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy and materia medica. These are placed in the hands of the student at any time during the day, upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosive preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

## EXAMINATIONS

The final examination in every required subject is held at the close either of the first or of the second term of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The examination in certain studies of the first year is held at *mid-year* only, and is for those who are members of the School at the time, and for those entitled to apply for the degree, provided they have failed previously in those subjects. The *June examination* is only for those who are members of the School at the time, and for those entitled to apply for the degree. The *September examination* is for conditioned students or for applicants for advanced standing. In some branches a portion of the examination consists of practical work in the laboratory.

The amount of time credited to each examination is as follows : —

*First Year.* — Anatomy* (3 hrs.), Histology and Embryology* (3 hrs.), Physiology (3 hrs.), Physiological and Dental Chemistry (3 hrs.).

*Second Year.* — Dental Pathology (3 hrs.), Materia Medica and Therapeutics (2 hrs.), Operative Dentistry (3 hrs.), Bacteriology* (1 hr.), Prosthetic Dentistry and Orthodontia (2 hrs.), Crown and Bridge Work (2 hrs.).

*Third Year.* — Operative Dentistry (2 hrs.), Surgical Pathology and Surgery (3 hrs.), Prosthetic Dentistry (2 hrs.), Orthodontia (2 hrs.), Crown and Bridge Work (2 hrs.). These examinations will include operations upon patients performed during the course.

In addition to the above examinations every student is required : —

To dissect the three parts of the body to the satisfaction of the Demonstrators ;

To satisfactorily complete the required specimens of Prosthetic Dentistry for the Junior and Senior years ;

To demonstrate his ability to meet satisfactorily the requirements in Operative Dentistry ;

To successfully carry on the treatment of at least two cases of irregularities of the teeth.

Students shall not be entitled to enter the third-year class in practical Operative and Prosthetic Dentistry until they have shown reasonable proficiency in the work of the second year.

No student may advance with his class until he has passed a satisfactory examination in a majority of the studies already pursued by his class.

No student will be allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Administrative Board.

Those who fail in any subject may present themselves in that subject again at the next regular examination. The regular examinations for the year 1910–11 will begin June 1 and September 22, 1910. After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

## STATE BOARD EXAMINATION

Students shall not take a State Board examination in Dentistry previous to the time of the final examinations of their Senior year, without a written permission from the Dean of the Dental School.

* The examinations in these subjects are held at the end of the first half-year.

## DIVISION OF STUDENTS

Students are divided into three classes according to their lines of study and proficiency, and during their Junior and Senior years will receive extensive opportunities for clinical instruction and for practice in actual operations on the natural teeth and mouth.

*In order that the time of study may count as a full year, students of all classes must present themselves within the first week of the academic year and register their names with the Dean.*

## REQUIREMENTS FOR THE DEGREE.

The degree of Doctor of Dental Medicine (*Dentariae Medicinae Doctoris*) may be conferred upon any candidate of adult age, and of good moral character, who has passed *all the required examinations.* He must also give evidence of having studied Medicine or Dentistry in some recognized school three full years, the last continuous year of which must have been spent at this School.

The degree of Doctor of Dental Medicine *cum laude* will be given to candidates who have pursued a complete three years' course in this School and obtained not less than eighty per cent. in Practical Operative and Prosthetic Dentistry and an average of eighty per cent. or over in all other required examinations.

The course is a graded one of three continuous years. *Graduates* from other reputable Dental Schools whose Course of Instruction consists of three years of nine months each may obtain the degree of Doctor of Dental Medicine by spending one year in the School and passing the required examinations.

Candidates for the degree are obliged to apply for the same in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

## INSTRUMENTS.

With the exception of extracting instruments, lathes, and vulcanizers, flasks, impression trays, blow-pipes and articulators, each student will be required to furnish his own instruments, and appliances for both laboratory and operating room.

No dental instruments are required during the first year. At the beginning of the second year a list of instruments required for use in both the Operative and Prosthetic Departments is furnished by the School, and each student is required to provide himself with the instruments

enumerated upon the lists before beginning his work. The cost of these instruments, including the dental engine, is about one hundred and twenty-five dollars.

## FEES AND EXPENSES

There are no fees for matriculation, for the diploma, for the demonstrators, or for materials used in the infirmary or prosthetic laboratory. For the first year of a student's membership in the School, the fee is *two hundred dollars*, in two payments of *one hundred and twenty dollars* and *eighty dollars;* for a half-year alone, *one hundred and twenty dollars;* for the second and third years, *one hundred and fifty dollars* each, in two payments of *ninety dollars* and *sixty dollars;* and for any subsequent year, *fifty dollars.*

During the first year there are the following additional expenses: Two dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, and twenty dollars for Chemistry and Physiology. In the second year three dollars will be charged for the course in Chemistry, and a deposit of ten dollars is required to cover any loss or breakage in the infirmary and laboratory. In the third year a deposit of ten dollars is required to cover any loss or breakage in the infirmary and laboratory. The balances of these deposits are returnable at the end of the year on application to the Bursar.

A deposit of one dollar with the Dean of the Medical School will entitle a student to the use of a locker in the Medical School buildings during the first year.

A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

Special students, admitted to the courses in Operative and Prosthetic Dentistry for the whole or any portion of the academic year, pay a fee of *fifty dollars* for each course.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places, at various prices, can be obtained at the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

Students' expenses may also be reduced by occupying rooms in the College dormitories in Cambridge. Information in regard to College rooms may be obtained after March 6 upon application to the Bursar.

* The Bursar's office is in Dane Hall, Harvard Square, Cambridge. Hours 9–1.

At Memorial Hall, Cambridge, the cost of board is expected not to exceed $5.25 a week.

At Randall Hall, Cambridge, meals are served à la carte, at a cost which averages about $3.50 a week. Application should be made early to the Secretary of the Randall Hall Association.

Any student who lives in a College room, or boards at Memorial Hall or at Randall Hall, must file a bond in the sum of *four hundred dollars;* or deposit *four hundred dollars* in money or United States Bonds; or deposit fifty dollars as security, pay his tuition-fees in advance as above, pay in advance the full year's rent of any room that may be assigned to him, and make a deposit with the Bursar as security for the payment of his board. In the case of Memorial Hall the deposit for board may be made each week at the rate of $6.00, or it may be made less frequently in multiples of that figure. In the case of Randall Hall, the deposit, made in sums of $5.00 or multiples thereof, must be such as to maintain constantly in the Bursar's hands a balance in excess of ten dollars.

### Stillman Infirmary Fee

*Not later than October 10* in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

## PAYMENT OF FEES

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and forty-nine dollars; each second-year student is required to pay, in like manner, one hundred and three dollars; each third-year student is required to pay, in the same manner, one hundred dollars; each student entering any subsequent year is required to pay, in the same manner, fifty dollars. The remainder of the tuition fee — eighty dollars for the first-year students and sixty dollars for the second and third-year students — must be paid to the Bursar on or before January 31. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School. *No degree can be conferred till all dues to the School are discharged.*

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School.

Students, on joining the School, and at the beginning of each school year, must enter their names with the Dean of the School. They are expected to register on the first day of the academic year, *the Thursday following the last Wednesday in September.*

# TABULAR VIEW — 1909–10

# TABULAR VIEW — 1909–10

## FIRST YEAR — First Half-Year

MEDICAL SCHOOL.

| | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 9–10 | *October.*<br>Anatomy. Lecture.<br>*November, December.*<br>Demonstrations and Laboratory Work. | | *Oct., Nov., Dec.,*<br>Anatomy. Lecture. | *October.*<br>Anatomy. Lecture.<br>*November, December.*<br>Demonstrations and Laboratory Work. | | *Oct., Nov., Dec., 9–11.*<br>Histology.<br>*January, 9–11.*<br>Anatomy. Lecture. |
| 10–1 | *October, November, December, January.*<br>Demonstrations and Laboratory Work. | | | | | *Oct., Nov., Dec., Jan. 11–1.*<br>Anatomy. Lecture. |
| 2–6 | *January.*<br>Lectures, Demonstrations, and Laboratory Work. | | | | | |
| 2–2.30 | *October, November, December.*<br>Histology. Lecture. | | | | | |
| 2.30–6 | Histology. Laboratory. | | | | | **Oct., Nov., Dec., Jan.*<br>General Chem.<br>Dental School Bdg. |

* Special course for conditioned students. Fee, $20.

## FIRST YEAR. — Second Half-Year

MEDICAL SCHOOL

PHYSIOLOGY. FEBRUARY

| | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 9–10 | Lecture or Demonstration. | | | | | |
| 10–1 | Laboratory Experiments. | | | | | |

*March, April, May.*

| | | | | | | |
|---|---|---|---|---|---|---|
| 9–10 | Lecture or Demonstration. | | | | | |
| 10–12.15 | Laboratory Experiments. | | | | | |
| 12.15–1 | Thesis or Lecture or Laboratory Experiments. | | | | | |

DENTAL AND PHYSIOLOGICAL CHEMISTRY.

| | | | | | | |
|---|---|---|---|---|---|---|
| 2–3 | Lecture. Daily except Saturday. | | | | | |
| 10–12 | Laboratory. Daily except Saturday. | | | | | |

# TABULAR VIEW

## 1909–10 — October

### SECOND YEAR — First Half-Year

| | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday |
|---|---|---|---|---|---|---|
| 9 | Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. H.M.S. A-201. | Mat. Medica and Thera., L. Briggs. H.M.S. E-221. | Pract. Oper. Dentistry. Section A. Stevens. Wyman. Dem.<br><br>Prosthetic Dentistry. Section B. Cross. Davis. | Dent. Path., L. Brackett. H.M.S. E-221. | Op. Dent., L. Dill. H.M.S. E-221. | Pros. Dent. L. Cross. H.M.S. E-221. |
| 10 | [2] Pract. Oper. Dentistry. Section A. Whitehill. Wyman. Dem.<br><br>[2] Prosthetic Dentistry. Section B. Cross. Peters. | Pract. Oper. Dentistry. Section B. Pike. Wyman. Dem.<br><br>Prosthetic Dentistry. Section A. Cross. Eames. Kazanjian. | | Pract. Oper. Dentistry. Section B. O. S. Smith. Wyman. Dem.<br><br>Prosthetic Dentistry. Section A. Cross. Beckford. | Pract. Oper. Dentistry. Section A. Littig. Wyman. Dem.<br><br>Prosthetic Dentistry. Section B. Cross. Furbish. Kazanjian. | Pros. Lab. Cross. Dort. [3] Pract. Oper. Dentistry. Whitchurch Estes. |
| 11 to 1 | | | | | | Extracting and Anaesthesia Stone. |
| 2–3 | Bacteriology. Lectures. Daily, except Saturdays. Medical School Building. | | | | | |
| 3 to 5½ | Bacteriology. Laboratory. Daily, except Saturdays. Medical School Building. | | | | | |

[1] Commencing October 4, every alternate Monday.
[2] " " 4, at 10 o'clock, every alternate Monday at 9 o'clock.
[3] In sections.

# TABULAR VIEW

## 1909-10 — November — December 15

### SECOND YEAR — First Half-Year

| | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 9 | Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. H.M.S. A-201. | Mat. Medica and Thera., L. Briggs. H.M.S. E-221. | Pract. Oper. Dentistry. Section B. Stevens. Wyman. Dem.<br><br>Prosthetic Dentistry. Section A. Cross. Davis. | Dent. Path., L. Brackett. H.M.S. E-221. | Op. Dent., L. Dill. H.M.S. E-221. | Pros. Dent. L. Cross. H.M.S. E-221. |
| 10 | [2] Pract. Oper. Dentistry. Section B. Whitehill. Wyman. Dem.<br><br>[2] Prosthetic Dentistry. Section A. Cross. Peters. | Pract. Oper. Dentistry. Section A. Pike. Wyman. Dem.<br><br>Prosthetic Dentistry. Section B. Cross. Eames. Kazanjian. | | Pract. Oper. Dentistry. Section A. O. S. Smith. Wyman. Dem.<br><br>Prosthetic Dentistry. Section B. Cross. Beckford. | Pract. Oper. Dentistry. Section B. Littig. Wyman. Dem.<br><br>Prosthetic Dentistry. Section A. Cross. Furbish. Kazanjian. | Pros. Lab. Cross. Dort. [3] Pract. Oper. Dentistry. Whitchurch Estes. |
| 11 to 1 | | | | | | Extracting and Anaesthesia Stone. |

| | November | December 1-15, included. |
|---|---|---|
| 2-3 | Bacteriology. Lectures. Daily, except Saturdays. Harvard Medical School. | Physiological and Dental Chemistry, L. Daily, except Saturday. Harvard Medical School. |
| 3 to 5½ | Bacteriology. Laboratory. Daily, except Saturdays. Harvard Medical School. | Physiological and Dental Chemistry, Laboratory. Daily, except Saturday. Harvard Medical School. |

[1] Commencing October 4, every alternate Monday.
[2] " " 4, at 10 o'clock, every alternate Monday at 9 o'clock.
[3] In sections.

# TABULAR VIEW

## 1909-10 — December 16 — January

### SECOND YEAR — First Half-Year

| | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 9 | Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. H.M.S. A-201. | Mat. Medica and Thera., L. Briggs. H.M.S. E-221. | Pract. Oper. Dentistry. Stevens. | Dent. Path., L. Brackett. H.M.S. E-221. | Op. Dent., L. Dill. H.M.S. E-221. | Pros. Dent. L. Cross. H.M.S. E-221. |
| 10 | [2] Pract. Oper. Dentistry. Whitehill. | Pract. Oper. Dentistry. Pike. | | Pract. Oper. Dentistry. O. S. Smith | Pract. Oper. Dentistry. Littig. | Pros. Lab. Cross. Dort. [3] Pract. Oper. Dentistry. Estes. |
| 11 to 1 | Wyman. Dem. | Wyman. Dem. | Wyman. Dem. | Wyman. Dem. | Wyman. Dem. | Extracting and Anaesthesia Stone. |
| 2 | Prosthetic Dentistry. Cross. Peters. | Prosthetic Dentistry. Cross. Eames. Kazanjian. | Prosthetic Dentistry. Cross. Davis. | Prosthetic Dentistry. Cross. Beckford. | Prosthetic Dentistry. Cross. Furbish. Kazanjian. | |
| 5 | Extracting and Anaesthesia. Midgley. | Extracting and Anaesthesia. Squarebrigs. | Extracting and Anaesthesia. Gilpatric. | Extracting and Anaesthesia. Norwood. | Extracting and Anaesthesia. Farrington. | |

[1] Commencing October 4, every alternate Monday.
[2] " " 4, at 10 o'clock, every alternate Monday at 9 o'clock.
[3] In sections.

# TABULAR VIEW
## 1909–10

### SECOND YEAR — Second Half-Year

| | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 9 | Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. H.M.S. A-201. | Mat. Medica and Thera., L. Briggs. H.M.S. E-221. | Orthodontia, L. Baker, H.M.S. E-221. | Dent.Path.,L. Brackett. H.M.S. E-221. | Op. Dent., L. Dill. H.M.S. E-221. | Prosthetic Dentistry, L. [3] Cross. H.M.S. E-221. |
| 10 | [2] Pract. Oper. Dentistry. Whitehill. | Pract. Oper. Dentistry. Pike. | Pract. Oper. Dentistry. Stevens. | Pract. Oper. Dentistry. O. S. Smith | Pract. Oper. Dentistry. Littig. | Pros. Lab. Cross. Dort. 10 to 1. [4] Pract. Oper. Dentistry. Estes. |
| 11 | Wyman. Dem. | Wyman. Dem. | Wyman. Dem. | Wyman. Dem. | Wyman. Dem. | Extracting and Anaesthesia Stone. |
| 2 to 5 | Prosthetic Dentistry. Cross. Peters. Extracting and Anaesthesia. Midgley. | Prosthetic Dentistry. Cross. Eames. Kazanjian. Extracting and Anaesthesia. Squarebrigs. | Prosthetic Dentistry. Cross. Davis. Extracting and Anaesthesia. Gilpatric. | Prosthetic Dentistry. Cross. Beckford. Extracting and Anaesthesia. Norwood. | Prosthetic Dentistry. Cross. Furbish. Kazanjian. Extracting and Anaesthesia. Farrington. | |

[1] Commencing October 4, every alternate Monday.
[2] " " 4, at 10 o'clock, every alternate Monday at 9 o'clock.
[3] Anatomical Articulation and the Mechanical Treatment of Fractured Jaws, Cleft Palates, and other oral deformities.
[4] In sections.

# TABULAR VIEW—1909-10

## THIRD YEAR—October and November

| | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 9 | Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. H.M.S. A-201. [4] Porcelain Work. Moffatt. [5] Com. Oct. 18. H. D. S. | Surgery, L. Monks. [3] Clin. Surg. Blake. | Op. Dent. L. Potter. H.M.S. A-201. | Prosthetic Conference or Lectures. Cross. H. D. S. | Oral Surgery, or Roentgenology, L. Shuman. H.M.S. A-201. | Orthodontia L. E. H. Smith. H.M.S. A-201. |
| 10 to 1 | [2] Crown and Bridge Work. Clinic. Cooke. Eldred. Estabrooks. Hovestadt Cross. | Prosthetic [5] Dentistry. Lab. Chute. Weston. Cross. | Prosthetic [5] Dentistry. Lab. Haley. Kazanjian. Langley. Cross. | Porcelain [5] Work. Clinic. Hadley. Prosthetic [5] Dentistry. Lab. Hayden. Kazanjian. Cross. | Oral Surgery. Clinic. Shuman. Miner. Prosthetic [5] Dentistry. Clark. L. A. Rogers. Cross. | Orthodontia Clinic. E. H. Smith. Baker. Howe. 10 to 1. Extracting and Anaesthesia Stone. |
| 2 | Pract. Op. Dentistry. Blaisdell. Wyman, Dem. Extracting and Anaesthesia. Midgley. | Pract. Op. Dentistry. Paul. Wyman, Dem. [5] Samaritan Hospital. M. F. Rogers. Extracting and Anaesthesia. Squarebrigs. | Pract. Op. Dentistry. Furfey. Wyman, Dem. Extracting and Anaesthesia. Gilpatric. | Pract. Op. Dentistry. Stanley. Wyman, Dem. Extracting and Anaesthesia. Norwood. | Pract. Op. Dentistry. Elliott. Wyman, Dem. Extracting and Anaesthesia. Farrington. | |
| 4 to 5 | | Orthodontia. Baker. Howe. | | Orthodontia Baker. Howe. | | |

[1] Commencing October 11, every alternate Monday.
[2] " " 4, at 9 o'clock, every alternate Monday at 10 o'clock.
[3] Boston City Hospital, to be announced.
[4] Every alternate Monday.
[5] In sections.

# TABULAR VIEW — 1909–10

## THIRD YEAR — December — June

| | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 9 | Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. H.M.S. A-201. [5] Porcelain Work. Moffatt. [6] Com. Oct. 18. H. D. S. | Surgery, L. Monks. H.M.S. A-201. [3] Clin. Surg. Blake. | Op. Dent. L. Potter. H.M.S. A-201. | Prosthetic Conference or Lectures. Cross. H. D. S. | Syphilis, L. C. Morton Smith. H.M.S. A-201. com. Dec. 3. Neurology. E. W. Taylor. 4 lectures, com. Feb. 11. H.M.S. A-201. | Orthodontia L. or Clinical Conference E. H. Smith. H.M.S. A-201. |
| 10 to 1 | [2] Crown and Bridge Work. Clinic. Cooke. Eldred. Estabrooks. Hovestadt. | Prosthetic [6] Dentistry. Lab. Chute. Weston. | Prosthetic [6] Dentistry. Lab. Haley. Kazanjian Langley. [4] Oral Hygiene. Wright. | Porcelain [6] Work. Clinic. Hadley. Prosthetic [6] Dentistry Lab. Hayden. Kazanjian. | Oral Surgery. Clinic. Shuman Miner. Prosthetic [6] Dentistry. Clark. L. A. Rogers. | Operative Dentistry. E. H. Smith. Whitchurch 10 to 1. Extracting and Anaesthesia Stone. |
| 1 | Cross. | Cross. | Cross. | Cross. | Cross. | |
| 2 | Pract. Op. Dentistry. Blaisdell. Wyman, Dem. Extracting and Anaesthesia. Midgley. | Pract. Op. Dentistry. Paul. Wyman, Dem. [6] Samaritan Hospital. M. F. Rogers. Extracting and Anaesthesia. Squarebrigs. | Pract. Op. Dentistry. Furfey. Wyman, Dem. Extracting and Anaesthesia. Gilpatric. | Pract. Op. Dentistry. Stanley. Wyman, Dem. Extracting and Anaesthesia. Norwood. | Pract. Op. Dentistry. Elliott. Wyman, Dem. Extracting and Anaesthesia. Farrington. | |
| 4 to 5 | | Orthodontia. Baker. Howe. | | | Orthodontia Baker. Howe. | |

[1] Commencing October 11, every alternate Monday.
[2] " " 4, at 9 o'clock, every alternate Monday at 10 o'clock.
[3] Boston City Hospital, to be announced.
[4] In sections. Massachusetts General Hospital. Second half-year.
[5] Every alternate Monday.
[6] In sections.

# EXAMINATION PAPERS

(*Annual Examinations, 1909*)

## First Year Studies

### ANATOMY. — Professor Dwight

1. Describe briefly the differences of (*a*) the body; (*b*) the spinous process; (*c*) the transverse processes; (*d*) the articular processes of a typical cervical, thoracic, and lumbar vertebra.

2. Describe the arrangement of the bones of the tarsus.

3. Describe the roots of the lungs, giving the arrangement of the different structures.

4. Describe the duodenum and its relations.

5. Describe the course of the fillet in the medulla, pons, and mid-brain.

6. Give the course, relations, and distribution of the hypoglossal nerve.

### HISTOLOGY AND EMBRYOLOGY. — Professor Minot

[Each student is given four sections to correspond with the first four questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

*Questions 1, 2, and 3 are for both Medical and Dental students.*

1. Draw the lymphoid tissue with high power. Define it. Describe its relations to the other parts shown in the section.

2. What is the specimen? Make drawings to show on what your identification is based.

3. (*a*) What is the specimen? Make drawings to show on what your identification is based.
   (*b*) Describe the blood supply.

4. (*For Medical students only.*) Draw four kinds of nuclei, illustrating in order their successive changes during spermatogenesis.

5. (*For Medical students only.*) Describe the development of the kidney.

6. (*For Dental students only.*)
   (*a*) Describe the enamel organ of an incisor.
   (*b*) Describe the structure of a salivary gland.
   (*c*) Describe the "teething" of the praemolars.

## PHYSIOLOGY. — Professor Cannon

[Answer any five questions. Mention, where possible, experimental evidence in support of your statements.]

1. Discuss the influence of temperature changes on skeletal and cardiac muscle.

2. With reference to the functioning of the nervous system define and illustrate "after discharge," "irreversible conduction," "inhibition," "facilitation," "graded synaptic resistance," "associative memory."

3. Describe the changes of irritability of heart muscle during a cardiac cycle, and consider the relation of these changes to the production of the rhythmic heart-beat and the direction of the contraction wave.

4. Discuss the factors concerned in biological haemolysis.

5. Discuss the influences normally affecting the respiratory centre.

6. Consider the means by which body temperature is regulated.

## PHYSIOLOGICAL AND DENTAL CHEMISTRY

### Mr. H. Carlton Smith

1. State briefly concerning: —
(*a*) The natural source of arsenic.
(*b*) Its use in dentistry and its effect as an impurity in oxyphosphate of zinc, etc.
(*c*) Method of detection by qualitative analysis.

2. How may a dental alloy be annealed?
How does annealing affect the amalgam?

3. Define a normal solution as used in volumetric analysis.
Tell what indicators you have used and in what operations.

4. Write briefly on the organic oxyacids as a class, and particularly on sarcolactic acid.

5. Given a dilute solution of KOH, 8.4 c.c. of which takes 10 c.c. of N/10 oxalic acid for complete neutralization.
Give calculation and detail of process of preparation of 1 liter of N/10 KOH.

6. Explain differences between polysaccharids and disaccharids. Give two examples of each class and characteristic tests.

7. What is the source of myosin? Why is it classed as a globulin?
How may creatin be prepared?

8. Discuss mucin as a factor in the decay of teeth.
Give test for KCyS in saliva.

9. Give source and action of each of the enzymes employed in proteid digestion.

10. How may albumin be detected and its quantity determined in the urine?
Give two quantitative methods.

## Second Year Studies

### BACTERIOLOGY. — Professor Ernst

1. Describe the Pneumococcus, including the microscopical, biological, and pathogenic properties.
2. How would you carry out the bacteriological diagnosis of typhoid fever?
3. What is active acquired immunity; how is it obtained, and what are its characteristics?

### DENTAL PATHOLOGY. — Professor Brackett

1. Predisposing causes of disease.
2. The manifestations of secondary syphilis.
3. The prevention of dental caries.
4. Expressions in the mouth of malignant disease.
5. The etiology of neuralgia.
6. The influence upon the living tissues of chronic alcoholism.
7. The significance of sensitiveness of the teeth to acids.
8. Pus.
9. The etiology of alveolar abscess.
10. The health of the gums.

### OPERATIVE DENTISTRY — Dr. Dill

1. Discuss the treatment of chronic alveolar abscesses involving the apexes of roots of teeth.

2. Discuss the use of artificial enamel: stating at least the kind of cavities for which it is particularly indicated, the general rules to be observed in the preparation of such cavities, the kind of cavities where its use is contra indicated, the approved method of mixing, precautions to be observed in insertion, etc.

3. A central incisor is presented which ached violently the previous night. It is found to be very sensitive to percussion, somewhat darker than its fellow and contains a large gold filling. Patient says dentist "capped the nerve" when he filled it. Diagnosis and treatment?

4. Name the different kinds of gold used in operative dentistry, the characteristics of each, the various forms in which they are dispensed, and the uses for which each is particularly adapted.

5. Discuss the preparation for gold of cavities in central incisors, involving the incisal corner.

6. Discuss fully the matrix in its various forms in so far as it has been taught in school, giving at least general precautions to be observed in its application, and the conditions under which the various forms are used.

7. Describe three ways of obtunding sensitive dentine, which do no require elaborate apparatus.

## CROWN AND BRIDGE WORK. — Professor Cooke

1. Describe the making of a banded Richmond porcelain-faced crown. Name the materials used in making the crown.

2. Describe the various methods of soldering, and give points to be observed in soldering.

3. Investing and investment materials; what are used? Points to be observed in their use.

4. Describe several ways of making seamless crowns.

5. Describe two ways of making a porcelain post crown.

6. Describe two ways of making a bridge.

7. State your difficulties in crown and bridge work and your remedy for them.

8. Give methods of root preparation.

9. Describe the making of an all-metal crown, not a seamless crown.

10. Discuss the breakage of porcelain in soldering; the uses of flux; the composition of posts for crowns.

## MATERIA MEDICA AND THERAPEUTICS. — Professor Briggs

1. Describe the acid treatment for erosion of the labial surfaces of incisors and state law of application of acids to secreting glands.

2. Describe fully $ZnCl_2$, Adrenalin, $AgNO_3$.

3. Objections to ether from the patient's standpoint and how they may be avoided.

4. Why is iodine of great value to the oral specialist? Give three examples of the application of iodine (singly or in combination) to diseases of the mouth.

5. What is the relation between the purely therapeutic dose of any drug and its toxic dose?

6. What strength solution of cocaine for submucous injection? For removal of pulp? Describe procedure in latter operations.

7. What are the best analgesics for pain in teeth and jaws? Describe two.

8. What is the opsonic index and the vaccine treatment? Cite two possible oral conditions where this treatment could be applied.

9. Describe fully two antiseptics.

10. Why should cathartics prove beneficial in the treatment of alveolar abscess, interstitial gingivitis, and antrum disease?

## PROSTHETIC DENTISTRY AND ORTHODONTIA
### Asst. Professor Cross and Dr. Baker

1. (*a*) Describe the contact and balance of the teeth during the lateral antagonizing bites.

(*b*) State what advantage is derived from it.

(*c*) If teeth are set up on an articulator and show a good occluding bite, but the cusps fail to come in contact, during the active antagonizing bite, what is wrong?

2. (*a*) Describe a reconstructed model.
(*b*) What is the purpose of the face-bow, used in connection with the construction of an inter-dental splint?

3. (*a*) What are the two most important relations to obtain in taking an occlusion?
(*b*) Of what importance is the angle of the condyle path?

4. What precautions should be taken before soldering a piece the second time?

5. Is a large or a small blow pipe flame best and why?

6. (*a*) What is the purpose of cores as applied to moulding?
(*b*) How are they made?

7. (*a*) What is one of the most important things in the fit of an impression tray?
(*b*) What is the purpose of a trial plate and when is it used?

8. (*a*) Give in their proper order the steps in the construction of a clasp.
(*b*) Describe some important features in regard to vulcanite repairs, especially with reference to flashing, and methods of packing the rubber.

9. (*a*) Give occlusial relations of the inferior left permanent cuspid.
(*b*) Give occlusial relations of the superior right permanent second molar.

10. Cite a case in which the traction-spur could be used to advantage as an auxiliary to the expansion arch appliance and explain fully the method of procedure.

## Third Year Studies

ORTHODONTIA. — Professor E. H. Smith

1. Prognathism. Causes and treatment.

2. Etiology of the V-shape arch.

3. Torsion and treatment.

4. Infra occlusion. Cause and treatment.

5. Etiology of the saddle-shaped arch.

6. Discuss reciprocal anchorage.

7. What precautions should be used to prevent decay of the teeth during the treatment of malocclusion?

8. What forms of malocclusion may occur from the extraction of the lower, deciduous, second molar before the eruption of the lower, first, permanent molar?

9. Under what condition would you use occipital anchorage?

10. In reducing mandibula prognathism does the change take place in the body of the bone or the ramus or in the glenoid cavity? Give reasons.

## OPERATIVE DENTISTRY. — Professor Potter

1. Describe the preparation of a corono-mesial molar cavity which is to be filled with gold.

2. Describe three ways of starting a gold filling, and state where each method is especially useful.

3. Under what circumstances is a matrix of advantage in the insertion of a gold filling.

4. Draw a cross section of the superior and inferior maxilla showing the position of the roots of the teeth.

5. What is the direction of least resistance in the extraction of a right inferior cuspid? (Explain by anatomical drawings.)

6. Draw and describe three kinds of elevators, and state where each can be used to advantage.

7. What physical signs would you expect to find in a patient who had aortic regurgitation? What precautions would you take if administering an anaesthetic to such a patient?

8. What is the best heart stimulant? Name three other heart stimulants and describe their uses.

9. Mention three or four of the most common diseases of the maxillary sinus, and describe the treatment of one of them.

10. Periostitis. Definition, etiology, diagnosis, prognosis, treatment.

## CROWN AND BRIDGE WORK. — Professor Cooke

1. The interdental space; how preserve it in crown work?

2. The uses of banded crowns.

3. The advantages of post crowns.

4. Several ways of making jacket crowns.

5. Points to be observed in deciding when and what crowns and bridges to use.

6. The relation of the articulation, considering the sex and weight of patient, to the use of crowns and bridges.

7. Give methods of repairing crowns and bridges.

8. Discuss the use of gold inlays in crown and bridge work.

9. Discuss crowning and bridging: —
   (*a*) Abscessed teeth.
   (*b*) Teeth affected with pyorrhea alveolaris.

10. Discuss the crowning of fractured teeth; the use of tipping bridges

## PROSTHETIC DENTISTRY

Asst. Professor Cross and Dr. Hadley

1. Describe briefly the features of construction.
(*a*) A continuous gum denture.
(*b*) A carved crown.

2. State the karat, gauge, and structure of the following: —
(*a*) Superior partial gold plate.
(*b*) Inferior partial gold plate.
(*c*) Inferior full gold plate.
(*d*) Superior full gold plate.

3. Man fifty years of age has the right superior first and second bicuspids and left molar missing; how should these be supplied, and why?

4. (*a*) Indicate the surfaces of a bulb-velum and the tissues of the pharynx which are in contact with each other.
(*b*) What is the purpose of the contacts?

5. A man seventy years old wishes artificial dentures. He has in good condition a superior right cuspid and left first molar, and inferior right first and second bicuspids.
(*a*) Should these teeth be extracted or not?
(*b*) Why?

6. (*a*) How long a time is it advisable to wait after extracting before inserting a denture?
(*b*) What three things may be considered as the most important aids to the stability of an inferior artificial denture?

7. (*a*) How may a model, with marked undercuts, be prepared for a sand mould and avoid a core upon which the melted metal is poured?
(*b*) How are clasps located, in relation to the crown of a tooth, in order to be retentive?

8. Of what is dental porcelain composed?

9. Illustrate the formation of an approximo-incisal cavity for porcelain.

10. Describe one method of making a gold inlay.

## SURGICAL PATHOLOGY AND SURGERY

Drs. Monks and Blake

1. Describe the development of acute inflammation of the soft parts.

2. What are the symptoms of acute suppuration?

3. Describe a sinus and a fistula.

4. Describe the different stages of an ulcer.

5. By what channels may the bacilli of tuberculosis enter the body?

6. What are some of the clinical differences between benign and malignant tumors?

7. Describe the treatment of enlarged submaxillary glands.

8. Diagnosis and treatment of erysipelas.

# LIST OF GRADUATES

OF

# THE DENTAL SCHOOL OF HARVARD UNIVERSITY

## 1869

| | |
|---|---|
| Thomas Fillebrown, M.D. (*Medical School of Maine*), | *1908. |
| Robert Tanner Freeman, | *1873. |
| Thomas Haley, | *1892. |
| Edward Page, M.D. (*Harvard*), | Boston. |
| Samuel Julius Shaw, | Marlboro. |
| Joseph Jenkins Vincent, | Amherst. |

## 1870

| | |
|---|---|
| John Thomas Codman, | *1908. |
| William Francis Davis, | New York, N. Y. |
| George Franklin Grant, | Boston. |
| Samuel Franklin Ham, | Los Angeles, Cal. |
| Daniel Grout Harrington, | *1899. |
| Thomas Wilson Hogue, | Bournemouth, England. |
| Timothy Otis Loveland, | Boston. |
| William Henry Noyes, | *1895. |
| George Luther Parmele, M.D. (*L. I. College Hospital*), | Hartford, Conn. |
| William Henry Thornton, | *1897. |
| Frank Edward Ward, | *1894. |
| Charles Wilson, | Boston. |

## 1871

| | |
|---|---|
| Charles Monroe Bailey, | Minneapolis, Minn. |
| George Hayward Baker, | Woonsocket, R. I. |
| Charles Edwin Hussey, | Biddeford, Me. |
| Albert Benton Jewell, | Newton. |
| Philip Benjamin Laskey, | Marblehead. |
| William Pitt Morgan, | Saginaw, W. S., Mich. |

* Deceased.

## 1872

| | |
|---|---|
| George Henry Ames, | Providence, R. I. |
| Sidney Chapin Bancroft, | Leavenworth, Kan. |
| Charles Samuel Bartlett, | Boston. |
| James Dias Bell, | Brighton, England. |
| Edwin Perley Bradbury, | Santa Barbara, Cal. |
| James Adkins Clark, M.D. (*Dartmouth*), | *1875. |
| James William Curtis, | Brunswick, Me. |
| George William Geist, | *1900. |
| John Warner Keyes, | Washington, D. C. |
| George Edward Langdon Noyes, | Newburyport. |
| Frederic Miller Robinson, | *1903. |
| Samuel Saiza Silva, | Southbridge. |
| Benjamin Henry Torrens, | Fredericton, N. B. |
| Winslow Lewis Tucker, A.B., A.M. (*Harvard*), | Boston. |
| Cecil Porter Wilson, | Boston. |

## 1873

| | |
|---|---|
| Charles Albert Brackett, | Newport, R. I. |
| Edward Augustus Dimmick, | *1905. |
| George Henry Knowles, | Central Falls, R. I. |
| William Herbert Rollins, M.D. (*Harvard*), | Boston. |
| Charles Herman Wolff, | Worms am Rhein, Germany. |

## 1874

| | |
|---|---|
| Willis Porter Battles, | *1899. |
| Edward Dwight Carr, | Kansas City, Mo. |
| Edward Eastman Frost, | Worcester. |
| George Leonard Mason, | *1895. |
| Horatio Cook Meriam, | Salem. |
| Frederic Augustus Merrill, | Boston. |
| Eugene Hanes Smith, | Boston. |
| Franklin Baker Stewart, | *1877. |

## 1875

| | |
|---|---|
| Forrest Greenwood Eddy, | Providence, R. I. |
| John Willard Hazelton, | Peabody. |
| Joseph Traverse Morong, | *1880. |
| Wilbur Bates Parker, | Boston. |
| Eben Francis Whitman, | *1902. |

1876

| | |
|---|---|
| Thomas Bradley, | New York, N. Y. |
| Oscar Berlin Brann, | *1908. |
| George Peters Caldwell, M.D. (*Harvard*). | |
| George Cunningham, B.L., B.SC. (*Univ. of Paris*), B.A., M.A. (*Cambridge*), L.D.S. (*Eng.*), | Cambridge, England. |
| Edgar Morton Jewett, | Portsmouth, N. H. |
| George Otis Lawrence, | *1899. |
| Jesse Robbins, | Salem. |
| Charles Claude Rogers, L.D.S., M.R.C.S. (*Eng.*), | London, England. |
| Ezra Fletcher Taft, A.B. (*Amherst*), | Cambridge. |
| Julius George Wilhelm Werner, | Boston. |

1877

| | |
|---|---|
| Allston Gray Bouvé, | Boston. |
| Henry Francis Dunkel, | Gunnison, Colo. |
| Edward Bigelow Hitchcock, M.D. (*Dartmouth*), | *1900. |
| Washburn Edward Page, | Boston. |
| Frank Perrin, | Boston. |
| Lucius Tracy Sheffield, | *1901. |
| Richard Theodore Stack, M.B. (*Dublin Univ.*), M.D., L.R.C.S. (*Edin.*), CH.M. (*Dublin Univ.*), L.M., F.R.C.S., L.D.S., R.C.S. (*Eng.*), | Dublin, Ireland. |
| Frank Herbert Williams, | Boston. |

1878

| | |
|---|---|
| Edward Cornelius Briggs, M.D. (*Harvard*), | Boston. |
| Joseph Mason Bright, | Bangor, Me. |
| Harry Fairfield Hamilton, B.S. (*Maine State Coll.*), | Boston. |
| Manning Kennard Rand, | Brookline. |
| Daniel Frank Whitten, | *1891. |
| Herbert Chauncey Woodward, | Paris, France. |

1879

| | |
|---|---|
| Frederic Eugene Banfield, | Boston. |
| Walter Bryant Currier, | Lynn. |
| Thomas Clarence Gillingham. | |
| Edward Samuel Niles, | Boston. |
| John William Smith, | *1889. |

1880

| | |
|---|---|
| Frederick Eugene Ayer, | Boston. |
| Albert James Colgan, | Dorchester. |
| Arthur Ernestine Lewis, | Calais, Me. |
| John Scott Mason, | Saco, Me. |
| Virgil Clarence Pond, B.P. (*Brown*), | Boston. |

1881

| | |
|---|---|
| William Parker Cooke, | Boston. |
| George Alfred Dennett, | Boston. |
| James Alfred Reilly, | Boston. |
| Edmond Rosenthal, | Brussels, Belgium. |
| Otis Franklin Smith, | *1903. |

1882

| | |
|---|---|
| Dwight Moses Clapp, | *1906. |
| George Eubank, | Birmingham, Ala. |
| Edward Earl Hopkins, | Boston. |

1883

| | |
|---|---|
| Elliot Bowdoin Bacheller, | Farmington, Me. |
| Edwin Carter Blaisdell, | Portsmouth, N. H. |
| Frederic William Hill, | Oxford, England. |
| Edward Albert Lowe, | *1899. |
| Samuel Sterrett Macfarlane, | Frankfurt am Main, Germany. |
| Myron William Smith, | *1886. |
| Joseph Ellsworth Waitt, | Boston. |
| George Arthur Williams, | Liverpool, England. |

1884

| | |
|---|---|
| Charles Lincoln Abbott, | Kansas City, Mo. |
| Frederic William Bevington, | Lawrence. |
| Henry Parsons Cooke, | Worcester. |
| Charles Percy Curtis, | Glasgow, W., Scotland. |
| Arthur Crowell Gerry, | Lowell. |
| George Henry Gerry, | Brooklyn, N. Y. |
| Charles Franklin MacDonald, | Boston. |
| Ned Albert Stanley, | New Bedford. |
| Jere Edmund Stanton, M.D. (*Bellevue*), | Boston. |
| Alfred Horace Tester, L.D.S., R.C.S. (*Eng.*), | Tunbridge Wells, England. |

1885

| | |
|---|---|
| Charles Henry Abbot, | Berlin, Germany. |
| Edward Merrill Currier, M.D. (*Boston Univ.*), M.D. (*Heidelberg*), | Boston. |
| Charles Eugene Estabrook, | Everett. |
| Thomas James Giblin, | Dorchester. |
| Henry Webster Gillett, | New York, N. Y. |
| Walter Harrison, L.D.S., R.C.S. (*Eng.*), | Brighton, England. |
| William Henry Potter, A.B. (*Harvard*), | Boston. |
| James Shepherd, | Boston. |

## 1886

| | |
|---|---|
| Lyman Fisher Bigelow, | Boston. |
| Waldo Elias Boardman, | Boston. |
| William Thomas Borton, | St. Petersburg, Russia. |
| Frederick Bradley, | *1907. |
| Henry Michael Clifford, | Charlestown. |
| Isidor Fürst, | Hamburg, Germany. |
| Leonard Nutter Howe, | Boston. |
| Frederic Milton Mayo, | *1909. |
| Wilhelm Leopold Olander, | *1896. |
| Charles Hutchins Taft, A.B. (*Harvard*), | Boston. |
| Henry Lauriston Upham, | *1909. |

## 1887

| | |
|---|---|
| Peter Crank, L.D.S., R.C.S. (*Eng.*), | Adelaide, So. Australia. |
| Carroll Ketcham Huntley, | Providence, R. I. |
| Leslie Maxwell, L.D.S., R.C.S.I. (*Ireland*), | Tunbridge Wells, England. |
| Edwin Leslie Shattuck, | London, England. |
| Frank Ellsworth Sprague, | Nashua, N. H. |
| Henry James Stark, | *1889. |
| Edgar Fremont Stevens, | *1902. |
| Arthur Henry Stoddard, | Boston. |
| Charles Henry Veo, | Boston. |
| John Daniel Wilson, | Boston. |
| Harry Eugene Windsor, | Providence, R. I. |
| Thomas Weston Wood, A.B., A.M. (*Brown*), | Boston. |
| Harvey Warner Woodberry, | New York, N.Y. |
| Charles Frederick Wright, L.D.S., R.C.S. (*Eng.*), | London, England. |

## 1888

| | |
|---|---|
| George Pierce Geist, | Frankfurt am Main, Germany. |
| Frederick Payne Graves, | Saco, Me. |
| Ellis Proctor Holmes, | Boston. |
| Henry Allen Kelley, | Portland, Me. |
| Thomas George Read, L.D.S., R.C.S. (*Eng.*), | London, England. |
| Frederick Arnold Stevenson, L.D.S. (*Prov. of Quebec*), D.D.S. (*Bishop's College, Prov. of Quebec*), | Montreal, Canada. |
| Charles Bryant Titcomb, | Salt Lake City, Utah. |

## 1889

| | |
|---|---|
| Fred. Anthony Arnold, | Newport, R. I. |
| Henry Jefcins Borton, | St. Petersburg, Russia. |
| Charles Poor Briggs, A.B., M.D. (*Harvard*), | Boston. |
| William Frederick Gay, M.D. (*Tufts*), | Boston. |
| Paul Grünewald, | Frankfurt am Main, Germany. |
| Frank Irving Hammond, | Providence, R. I. |
| Frederick Sylvanus Hopkins, | Boston. |
| Daniel Albion Jones, B.A., M.D. (*Yale*), | New Haven, Conn. |
| William Russell Jones, | Northampton. |
| William Lombardino, | Berlin, Germany. |
| Patrick William Moriarty, | Boston. |
| William Curren O'Leary, | Brookline. |
| Arthur Henry Osgood, A.B. (*Harvard*), | Boston. |
| Caleb Heath Shepard, | *1892. |
| Frederic Ervin Twitchell, | Willmar, Minn. |
| Eugene Jakob Wetzel, | Mülhausen, Alsace, Germany. |
| James Robert White, | No. Adams. |

## 1890

| | |
|---|---|
| Sidney Roland Bartlett, S.B. (*Mass. Inst. of Tech.*), | Colorado Springs, Colo. |
| Harry Oliver Bixby, | North Cambridge. |
| Benjamin Howard Codman, | Boston. |
| Edwin Hartley Dixon, | New York, N. Y. |
| Arthur Warren Eldred, | Worcester. |
| Charles Manning Keep, M.D. (*Harvard*), | Boston. |
| Charles Elmer Luce, | Stuttgart, Germany. |
| Kotai Masuda, | Yokohama, Japan. |
| Arthur Judson Oldham, | Boston. |
| Hermann Paal, | *1907. |
| Charles Ernest Perkins, | Brockton. |
| Oscar Pulvermacher, | Berlin, Germany. |
| Edward Rolfe. | |
| Elbridge Abbott Shorey, | Dover, N. H. |
| Frank Turner Taylor, | Boston. |

## 1891

| | |
|---|---|
| Paul Henri Jules Boitel, | Vevey, Switzerland. |
| Georges Antoine Brouillet, | Boston. |
| Alexander Humboldt Fisher, | Roxbury. |
| Adin Albert Goldsmith, D.D.S. (*Univ. of Penn.*), | London, England. |
| Amos Irving Hadley, | Boston. |

| | |
|---|---|
| George Meads Holden, | Hackettstown, N. J. |
| Shimpei Nobutsune Isawa, | Tokyo, Japan. |
| George Martin, D.D.S. (*Univ. of California*), | Berlin, Germany. |
| Clarence Moore Noble, | *1897. |
| Hugh Owen, | Auckland, New Zealand. |
| Joseph Totten Paul, | Boston. |
| George Barnum Perry, | Chicago, Ill. |
| William Fuller Sharp, D.D.S. (*Univ. of California*), | San Francisco, Cal. |
| Fred Homer Woodcock, | *1895. |

## 1892

| | |
|---|---|
| Edward Stanley Bryant, | Brockton. |
| Allen Stanley Burnham, | Gloucester. |
| Charles Edward Bugbee Chase, | Boston. |
| Willard Eben Curtice, | Roxbury. |
| Kirk Addison Davenport, D.D.S. (*Univ. of Penn.*), | London, England. |
| Ernest Frederick Gabell, | London, England. |
| Theodore Hallett, | *1898. |
| Herbert Frederic Hill, L.D.S., R.C.S. (*Ireland*), | London, England. |
| Albert Edward Hulme, | Andover. |
| Richard Carl Moritz, | London, England. |
| Harry Snow Parsons, M.D. (*Bowdoin*), | Boston. |
| Henry Robinson Peach, | Salem. |
| Henry Edward Rose, L.D.S., R.C.S. (*Ireland*), | Birmingham, England. |
| Nathan Prindle Wyllie, | *1900. |

## 1893

| | |
|---|---|
| Charles Oscar Cummings, A.B. (*Dartmouth*), | *1894. |
| Frank Roberts Dickerman, | *1908. |
| George William Field, Jr., L.D.S., R.C.S. (*Ireland*), | London, England. |
| George Rufus Gray, D.D.S. (*Univ. of Penn.*), | Worcester. |
| Joseph Geiger Grove, Jr. | *1908. |
| Max Hanau, | *1904. |
| Arthur John Lamere, | Fitchburg. |
| Richard Pearson, M.R.C.S. (*Eng.*), L.R.C.P., R.C.S. (*London*), M.B., B.S., M.D. (*Durham*), | London, England. |
| Edward Melville Quinby, M.R.C.S., L.R.C.P. (*Eng.*), | Liverpool, England. |
| Charles Hudson Quirk, M.D. (*Harvard*), | Buenos Ayres, Argentine Rep. |
| Frederick King Richardson, | New Rochelle, N. Y. |
| William Bertram Sansom, L.D.S., R.C.S. (*Eng.*), | London, England. |
| John Joseph Smith, | *1894. |
| Frank Merrett Wilkinson, | Perth, West Australia. |

1894

| | |
|---|---|
| Eugene Everett Arnold, | *1901. |
| Joseph Bergin Belliveau, | Boston. |
| Joseph Boylston, | Portsmouth, N. H. |
| Thomas Bernard Hayden, | Boston. |
| Jay Reuben Holton, | St. Louis, Mo. |
| Gustave Joseph Inderbitzen, | Berne, Switzerland. |
| Arthur Jackson, | Boston. |
| Frederick William Percival, | Peterborough, England. |
| Thomas Edward Quinn, | Boston. |
| Fred Gibson Robbins, M.D. (*Harvard*), | Boston. |
| Arthur Galusha Smith, | Peoria, Ill. |
| George Lund Taft, PH.B., A.B. (*Boston Univ.*), | Cambridge. |
| Louis Napoleon Veo, | Boston. |
| William Joseph Walton, M.D. (*Harvard*), | Dorchester. |

1895

| | |
|---|---|
| Ernst Sixten Arvedson, L.D.S. (*Sweden*), | Stockholm, Sweden. |
| Edward Doane Barrows, | Berlin, Germany. |
| Robert Lander Bartlett, M.D. (*Tufts*), M.D. (*Univ. and Bellevue Hospital Med. Coll.*), | Para, Brazil. |
| Clarence Augustus Carr, A.B., A.M. (*Brown*), | Newport, R. I. |
| Walter Strout Coleman, | Portland, Me. |
| Dwight Ward Dickinson, B.S. (*Boston Univ.*), | Watertown. |
| Percy Edgelow, M.R.C.S. (*Eng.*), L.R.C.P. (*Edinb.*), | London, England. |
| James Austin Furfey, | Boston. |
| Marquis D Littig, D.D.S. (*Univ. of Penn.*), M.D. (*Tufts*), | Boston. |
| Frederick Everett Meader, | Boston. |
| Richard Dyer Milliken, | Saco, Me. |
| Robert Tucker Moffatt, | Boston. |
| Henry Clinton O'Brien, | Brookline. |
| Patrick Henry O'Connor, | Los Angeles, Cal. |
| Francis Wheeler Rice, | *1897. |
| Leopold Adolph Edward Scheuermann, | Berlin, Germany. |
| Arthur Hale Woodcock, | Boston. |

1896

| | |
|---|---|
| Francis Homes Barnard, Jr. | Duluth, Minn. |
| Edgar Casper Bienemann, L.D.S. (*Coll. of Physicians and Surgeons, Scotland*), | Croydon, England. |
| Asher Harriman St. Clair Chase, | Everett. |
| Ernest Howard Chute, | Boston. |
| Charles Winfield Crane, | Lynn. |

| | |
|---|---|
| Harold DeWitt Cross, | Nashua, N. H. |
| John Walter Emery, | Boston. |
| Edwin Linwood Farrington, | Lowell. |
| Adelbert Fernald, | Boston. |
| Guy Webster Gilbert, | Lawrence. |
| Harry Sargent Gilman, | Boston. |
| Harry West Haley, | Boston. |
| Harvey Winchester Hardy, | Boston. |
| Harry Morrill Haynes, | Boston. |
| Robert John McMeekin, | Halifax, N. S. |
| James Francis Martin, | Springfield. |
| Edward Wakefield Matthews, | Yarmouthport. |
| Charles Everett Monroe, | Wollaston. |
| Thomas Kennedy Ross, | Fitchburg. |
| Philipp Johann Alexander Stadelmann, | Dresden, Germany. |
| Walter Irving Sweet, | Providence, R. I. |
| Charles Frederick York, Jr. | Chelsea. |

## 1897

| | |
|---|---|
| Frederick Wilde Allen, | Boston. |
| Frank Pliny Barnard, | Worcester. |
| Roy Keney Belden, | *1908. |
| Harry Ernest Belyea, | Saskatoon, North West Territory, Canada. |
| Charles William Berry, B.S. (*Dartmouth*), | W. Somerville. |
| Ralph Vincent Blake, PH.G. (*Mass. Coll. of Pharmacy*), | New York, N.Y. |
| Harold Edgeworth Davis, M.D. (*Cooper Med. Coll.*), | Apia, Samoa. |
| Robert Irving Davis, | Chelsea. |
| Walter Sheldon Davis, | Braintree. |
| John Dana Dickinson, | Boston. |
| Harold Watson Estey, | Boston. |
| Walter Joseph Faunce, | Roxbury. |
| George Lincoln Forrest, | No. Brookfield. |
| Leo Green, A.B. (*Coll. of City of New York*), | New York, N. Y. |
| George True Greenwood, | Fitchburg. |
| Francis Herbert Harding, | West Point, Cal. |
| Edward Everett Henry, | Kingston, N.Y. |
| Arland Martin Kenney, | Roxbury. |
| Charles Ansel Lakin, | Worcester. |
| William Cable Lunan, | Southbridge. |
| Raimond Edgar McDonnough. | Portland, Me. |
| Thomas Richard McMahon, | Charlestown. |
| Joseph Thomas Mooney, | Boston. |
| Charles Erwin Parkhurst, A.B. (*Boston Univ.*), | Somerville. |

Henry Carlton Spencer, Newton.
Joseph Herman Stromier, D.D.S. (*Univ. of Mich.*), L.D.S. (*Coll. of Physicians and Surgeons, Glasgow*), Glasgow, Scotland.
David Pickard Thomas, L.D.S. (*Scotland*), George, Cape Colony, Africa.
Clarence Bartlett Vaughan, Boston.
Frank Hosea Veo, Boston.
George Alfred Warren, West Somerville.
Walter Harris White, Boston.
Herbert Clarence Woodman, Boston.

## 1898

Harry Roscoe Allen, Hartford, Conn.
Ernest Harold Christopher Bailey, E. Melbourne, Australia.
Francis William Bailey, Waterford, Ireland.
Lawrence Wills Baker, Boston.
Charles Boardman Burnham, Beverly.
John Alexander Counter, Sylvania, O.
Frank Crowther, Perth Amboy, N. J.
Joseph Daley, *1907.
Eliot Taylor Dickinson, B.SC. (*Boston Univ.*), Northampton.
Giles Dowling, Dedham.
Paul Hill Duckworth, Boston.
Stewart Cheselton Fisher, Denison, Tex.
Harry Linwood Grant, A.B. (*Brown*), Providence, R. I.
Timothy Hanrahan, Boston.
George Herbert Harding, L.D.S., R.C.S. (*Eng.*), Llandudno, No. Wales.
Ernest Jewett Hart, Boston.
George Murray Hersey, New Dorchester.
J. Churchill Hindes, Boston.
Horace Leonard Howe, Boston.
Almon Evans Leonard, Santa Fe, New Mexico.
William Saul Louisson, D.D.S. (*Univ. of Penn.*), San Francisco, Cal.
Frank Martin Lynde, A.B. (*Tufts*), Barre, Vt.
Michael Francis McDermott, M.D., C.M. (*Queen's Univ., Kingston*), Kingston, Canada.
John Norman Macdonald, L.D.S., R.C.S. (*Edinb.*), Dunedin, New Zealand.
Elmer Joseph Marston, Boston.
Louis Frederic Mongeon, Boston.
Charles Edward Murphy, Salem.
William Morse Parker, West Medford.
James Avard Richan, Rockland, Me.

| | |
|---|---|
| William Joseph Rogers, | Jamaica Plain. |
| Frederick Augustus Leopold Schuckmann, | Hameln, Germany. |
| Frank Bowker Siears, | Malden. |
| Murdock Campbell Smith, M.D., D.D.S. (*Howard*), | Lynn. |
| William Daniel Squarebrigs, | Boston. |
| Wilfred Harlow Starratt, A.B. (*Acadia Univ.*, *Nova Scotia*), | Halifax, N. S. |
| John Talbot Timlin, | Melrose. |
| Albert Everett Tuck, | Rockport. |
| Ernest Blake Williams, | *1899. |
| Oliver Perry Wolfe, | Canton. |

## 1899

| | |
|---|---|
| Percy Lewis Barker, | *1900. |
| Harold Nickerson Boyle, | Reading. |
| Burt Myron Bristol, | Boston. |
| Ernest Earl Carle, | Malden. |
| John Sibley Coxeter, | Newtonville. |
| James Bernard Crofwell, | Roxbury. |
| Joseph Walter Davis, | New York, N. Y. |
| Franklin Everett Dawes, | Boston. |
| John Matthew Donovan, | Dorchester. |
| Guy Jerome Elwell, | Gloucester. |
| Thomas Dorsey Esgate, | Norfolk, Conn. |
| William Edward Fallon, | Boston. |
| George Emil Julius Federlin, | Leipzig, Germany. |
| Fritz Heinrich Fincke, M.D. (*Univ. of Maryland*), | *1899. |
| George Osbourne Gaymond, | *1903. |
| Everett Kendall Hallet, | New Dorchester. |
| Oscar John Heinrich, | Leipzig, Germany. |
| Elbridge Decosmos King, | Boston. |
| Karl Sumner Kyes, | Peterborough, N. H. |
| Arthur Allen Libby, | Boston. |
| Thomas Francis McHale, | Providence, R. I. |
| Alfred Cooper Nathan, D.D.S. (*Phila. Dent. Coll.*), | No. Sydney, Australia. |
| Norman Beverly Nesbett, | New Bedford. |
| Charles Warren Patch, | Denver, Colo. |
| James Henry Pemberton, | Fall River. |
| William Eben Phillips, | Melrose. |
| James Edward Power, | Providence, R. I. |
| Herbert Arthur Reed, | Boston. |
| Oscar Per Herman Reuterswärd, | Boston. |
| George Danforth Richmond, | Kobe, Japan. |

| | |
|---|---|
| Charles Bradford Robinson. | |
| Willard Mariner Rowe, | Waltham. |
| Carl Axel Robert Samsioe, | Stockholm, Sweden. |
| Edwin Silas Thompson, | Vineyard Haven. |
| Evan Parker Wentworth, | Boston. |
| Edward Patrick White, | Cambridge. |

1900

| | |
|---|---|
| George Chandler Baldwin, *cum laude*, | Philadelphia, Pa. |
| George Emerson Barrell, | Boston. |
| George Oliver Bartlett, | Cambridge. |
| Daniel Crawford Brown, | Baltimore, Md. |
| Harry Sanford Burton, L.D.S., R.C.S. (*Eng.*), | Oxford, England. |
| Stephen Frederick Carrier, | Roxbury. |
| Horace Amos Davis, PH.B. (*Tufts*), | Boston. |
| Frederick Wilbur Day, | Augusta, Me. |
| John Irving Esgate, *cum laude*, | No. Attleboro. |
| John Wesley Estabrooks, *cum laude*, | Boston. |
| Louis Dinsmore Holman Fuller, | Boston. |
| Clarence Marshall Glazier, | Roxbury. |
| Dennis Joseph Hurley, | Dedham. |
| Charles Allen Jameson, | Boston. |
| Edwin Newell Kent, | Brookline. |
| Joseph Lecomte, M.D. (*Brussels Univ., Belgium*), | Brussels, Belgium. |
| Carlton Butler Leighton, | Portland, Me. |
| Albert Ira Mackintosh, | Hyde Park. |
| Charles Winthrop McPherson, | Medford. |
| Dwight Clifford Martin, M.D. (*Harvard*), | Boston. |
| William Wilkinson Marvel, | Fall River. |
| Leslie Herbert Naylor, | Newton. |
| Ralph Wheelwright Payne, | Greenfield. |
| Frank Derby Pierce, | W. Roxbury. |
| Samuel Lumn Doherty Randall, | Rio Janeiro, Brazil, South America. |
| Joseph Eugene Rochette, | Worcester. |
| Charles William Rodgers, | Dorchester. |
| John William Ryan, | Cambridge. |
| Henry Heims Simmons, *cum laude*, | Florence, Italy. |
| Frank Winthrop Snow, | Providence, R. I. |
| David Frederick Spinney, | Brookline. |
| Nelson Gore Trueman, M.D. (*Harvard*), | Boston. |
| John Augustine Watts, | Nutley, N. J. |

## 1901

| | |
|---|---|
| Fennimore Shute Andrews, | Quincy. |
| Roland Safford Barney, | Boston. |
| Leslie Barnes Boutwell, | Boston. |
| Fred Phillips Brown. | |
| Patrick Henry Buckley, | Brockton. |
| Harry Howard Cushing, | So. Framingham. |
| James Willoughby Cutler, | Watsonville, Cal. |
| Walter Alonzo Davis, | Boston. |
| John Walker Dickinson, | Boston. |
| John Patrick Donovan, | Norwood. |
| Wilson Case Dort, | Boston. |
| Alfred Culmer Edwards, L.D.S., R.C.S. (*Eng.*), | Pau, France. |
| Samuel Tuttle Elliott, *cum laude*, | Boston. |
| Ellis Vinal Fanning. | Brockton. |
| John Joseph Gallahue, | So. Boston. |
| Rufus Henry Gould, | Worcester. |
| Hugh Kerr Hatfield, M.D. (*Harvard*), | Boston. |
| Charles Levi Joslin, | Somerville. |
| Henry Harold Luther, | Newport, R.I. |
| Albert Leonard Midgley, *cum laude*, | Providence, R.I. |
| Charles Gilman Pike, | Boston. |
| Norman Greene Reoch, *cum laude*, | Boston. |
| Arthur Verne Rogers, | Winchester. |
| Melville Forrest Rogers, *cum laude*, | Boston. |
| Paul Haywood Shinn, | Boston. |
| Harry Judson Smith, | Brooklyn, N.Y. |
| Coleman Tousey, A.B. (*Tufts*), *cum laude*, | Boston. |
| Emery William White, | *1902. |
| Robert Whitehill, | Boston. |

## 1902

| | |
|---|---|
| Walter Adams Bradford, *cum laude*, | Boston. |
| Adelbert Melvin Bruce, | Beverly. |
| Frederick Matthew Cassidy, | Chattanooga, Tenn. |
| William Chesley Clinch, | Boston. |
| Charles Davis Cobb, | Boston. |
| Burton Henry Cooper, *cum laude*, | New London, N.H. |
| Charles Henry Daly, | Brooklyn, N. Y. |
| Albert William Day, | Worcester. |
| Arthur Trowbridge Freeman, | Boston. |
| Charles Wesley Hale, *cum laude*, | Springfield. |
| Thomas Frederick Hammond, | Palo Alto, Cal. |

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| Fred Burpee Hicks, | Brookline. |
| Morris Arthur Lazarus, | Seattle, Wash. |
| Erving Fiske Lowe, | Fitchburg. |
| Frank Randall McCullagh, | Roxbury. |
| Edward James McGoldrick, | Cambridge. |
| Henry Edmund McNally, | Rockland. |
| Walter Curtis Miner, | Boston. |
| Walter Grover Newell, | Boston. |
| James Joseph O'Brien, *cum laude*, | Somerville. |
| Thomas Bartholomew Owens, | Boston. |
| Leo Augustine Rogers, | Boston. |
| Walter James Scott, | Rutland, Vt. |
| Luther Dimmick Shepard, Jr., A.B., M.D. (*Harvard*), | Boston. |
| Harry Benjamin Shuman, *cum laude*, | Boston. |
| William John Speers, | Fall River. |
| Rudolph Sykora, | Boston. |
| Charles Thomas Warner, *cum laude*, | Boston. |
| Henry Eugene Watkins, | Worcester. |
| Bryce Aughterson Wilson, | Providence, R. I. |
| George Fisher Wolfe, | Norwood. |
| Herbert Harlan Yarrington, | Rutland, Vt. |

1903

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| Paul Christen, | Zürich, Switzerland. |
| Harold William Clarke, *cum laude*, | Springfield. |
| Bernhard Cohen, A.B. (*Harvard*), *cum laude*, | New York, N.Y. |
| Henry Eli Cohen, | Boston. |
| Ralph Prindall Cunningham, *cum laude*, | Springfield. |
| Stanley William Damon, | Boston. |
| John Boynton Davis, A.B. (*Harvard*), *cum laude*, | Philadelphia, Pa. |
| Martin Bassett Dill, A.B. (*Harvard*), | Providence, R. I. |
| Ernest Hubbell Gilbert, A.B. (*Brown*), | Portland, Ore. |
| Henry Gilman, A.B. (*Bowdoin*), | Portland, Me. |
| Harold Clinton Hanlon, | New York, N.Y. |
| William Dimick Hazen, | Lebanon, N. H. |
| Herbert Frank Langley, *cum laude*, | Randolph. |
| Albert Thompson McMurray, | Fredericton, N.B. |
| Edward O'Connor, | East Cambridge. |
| Austin Hall Parker, | Boston. |
| Charles Henry Patton, | St. John, N.B. |
| Frederick Capen Peterson, | East Boston. |
| Mark Bailey Pressey, | Wallingford, Conn. |
| Frank Packard Simpson, | Pittsfield. |
| Harry Austin Stone, | Somerville. |

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| Frank Edgar Travis, | So. Framingham. |
| William Harry Weston, | Nashua, N.H. |
| Aubrey Albuoy Williams, | Lynn. |
| Clinton Nickerson Williams, | Providence, R. I. |
| Thomas William Lee Wilson, M.A.C.D. (*Melbourne Coll. of Dentistry*), | Ballarat, Victoria, Australia. |
| George Henry Wright, | Boston. |

1904

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| Charles Henry Calusdian, | Boston. |
| Charles Douglas Carter, | Kingston, N. Y. |
| Raymond Boynton Carter, | Pepperell. |
| Ernest Herbert Caswell, | Boston. |
| Harry Sylvester Clark, B.S. (*Dartmouth*), *cum laude*, | Danvers. |
| Frank Leroy Eames, | W. Somerville. |
| Nathan Anthony Estes, | Newport, R. I. |
| Frederick Azro Gibbs, B.S. (*Dartmouth*), | Somersworth, N. H. |
| William Sharpe Hamilton, *cum laude*, | Williamstown. |
| James Chester Haynes, | Long Island City, N.Y. |
| Julius Frank Hovestadt, | Boston. |
| Marshal Luther Howver, D.D.S. (*Univ. of Michigan*), | Boston. |
| Christopher William Hurworth, M.A.C.D. (*Melbourne Coll. of Dentistry*), | Brisbane, Australia. |
| Leon Julius Lawton, *cum laude*, | Providence, R. I. |
| Frank Donovan McDonough, | Charlestown. |
| Leroy Matthew Simpson Miner, M.D., *cum laude*, | Boston. |
| Melville Neal Otis, | Providence, R. I. |
| Clinton Mayberry Pope, | Boston. |
| William Burton Rogers, | Pascoag, R. I. |
| Ubert Clifton Russell, | Fitchburg. |
| Frank I Shaw, D.D.S. (*Vanderbilt*), | Seattle, Washington. |
| Benjamin Tishler, | Boston. |
| Charles Lincoln Twichell, | Warren. |
| Allan La Forest Watson, | Kimberly, So. Africa. |
| Eugene Barry Wyman, *cum laude*, | Cambridge. |

1905

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| Walter Childs Bazin, D.D.S. (*Bishop's Univ., Prov. of Quebec*), | Bombay, India. |
| Robert Scott Catheron, | Needham. |
| Earle Clinton Cummings, | Boston. |
| Harold Leonard Emmons, | Saco, Me. |
| Charles Kingsley Field, | Springfield. |
| John Arthur Furbish, A.B. (*Bowdoin*), | Boston. |

George Stephen Smith Greenwell, M.H.A.C. (*Hawksbury Agric. Coll., N. S. Wales*), *cum laude*, Killara, Sydney, N. S. W., Australia.
Howard Robinson Greenwell, *cum laude*, Killara, Sydney, N. S. W., Australia.
Albert Herder, Waltham.
George White Isles, *1907.
Varaztad Hovhaness Kazanjian, Boston.
Carl Kolb, Boston.
Philip Amos Leavitt, Providence, R. I.
Howard Mathers, Newport, R. I.
Charles Whiting Mock, No. Brookfield.
Blaine Wilcox Morgan, Worcester.
John William O'Connell, Wakefield.
Joseph Francis O'Connor, Lynn.
Abner Beale Packard, Quincy.
Newell Oscar Parker, Everett.
Walter Oscar Paul, D.D.S. (*Philadelphia Dental Coll.*), Sydney, N. S. W., Australia.
Simon Vartan Pazeian, Worcester.
Walter Fairfield Provan, Dorchester.
Charles Henry Reed, Attleboro.
John Henry Russell, Providence, R. I.
William Vernon Ryder, *cum laude*, Northampton.
Otis Shaw Smith, Boston.
Charles Edward Stevens, *cum laude*, Boston.
Lester Ashton Stone, Fitchburg.
Frank Stuhl, Lyons, France.
Harry Samuel White, Boston.
Byron Clarke Witham, Portland, Me.

## 1906

Horatio Le Seur Andrews, Cambridge.
Francis Leonard Aubrey, L.D.S. (*England*), Bournemouth, England.
William Henry Baker, Roxbury.
Howard Watson Baldwin, Great Barrington.
Fred Alexander Beckford, *cum laude*, Boston.
Willem Matthias van den Broek, Schiedam, Holland.
Percie Chater Charlton, Sydney, N. S. W., Australia.
Howard Clapp, *cum laude*, Boston.
Robert Glendinning Collins, Bridgeport, Conn.
Arthur Sylvester Crowley, Cambridge.
Alban Berchmans Chrysostome Descroix, Boston.

| | |
|---|---|
| Roland Edward Desoe, | West Springfield. |
| Joseph Elisha Farnum, | Providence, R. I. |
| William Henry Gilpatric, | Winchester. |
| Merton Henry Greene, | South Gardner. |
| Thomas Peckham Ernest Greene, | New Bedford. |
| John Edward Hassett, | Rockville, Conn. |
| Robert Hope, | London, England. |
| Meritt Jenkins, PH.B. (*Tufts*), | Waltham. |
| Herman Eli Kahn, | Boston. |
| Thomas Nicholas Lanigan, | Rockland. |
| Edward Henry Loomer, | Dorchester. |
| Cornelius Henry Mack, | Springfield. |
| Frank Thomas Murray, | Everett. |
| John Gilchrist Niles, | Boston. |
| Harold Bradshaw Norwood, | Boston. |
| Maurice Earle Peters, *cum laude*, | Boston. |
| William Dawbney Riggs, | New York, N. Y. |
| Judson Clarence Slack, *cum laude*, | North Abington. |
| William Fiske Strangman, | Salem. |
| Arthur Garfield Webster, | Portsmouth, N. H. |
| Willis Henry Weinz, | Boston. |
| Ernest Victor Leon Whitchurch, | Boston. |
| Fred Sumner Woods, | So. Portland, Me. |

## 1907

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| Lawrence George Atherton, | Lynn. |
| John Albert Breen, | Somerville. |
| Charles Julius Edmond Challis, | London, England. |
| Moses Alexander Chertok, | Worcester. |
| Nathaniel Abraham Finkelstein, | Boston. |
| Samuel Carson Huggins, | Luscomb Dawlish, England. |
| Edwin Stearns Kent, PH.B. (*Yale Univ.*), | Portsmouth, N. H. |
| Irvin Whiteley Kew, | Hong Kong, China. |
| Howard Arthur Lane, *cum laude*, | Dorchester. |
| Alvin Benton Leavitt, B.S. (*Dartmouth*), | New York, N. Y. |
| José Paulo Filomeno Piedade Martinho Lobo, M.D. (*Lisbon, Portugal*), | Cambridge. |
| Charles McLellan McKenzie, | Sprague, Wash. |
| George Nicholson McPherson, | East Boston. |
| Herman Dutton Marggraff, | Watertown, Conn. |
| Albert Alexander Merrill, | Halifax, N. S. |
| Richard John Owen, | Auckland, New Zealand. |
| Alton Flagg Perkins, | St. Johns, Newfoundland. |

Albert Pfeiffer, L.D.S., R.C.S. (*England*), London, England.
Francis Henry Phillips, Worcester.
Hugo Charles Rietz, D.D.S. (*Chicago Coll. of Dental Surgery*), Boston.
Reinhold Ruelberg, *cum laude*, Allston.
John Campbell Thompson, Boston.
John Edwin Tibbetts, Rockland, Me.
Leo Augustus White, Charlestown.

1908

Julius Friedrich Wilhelm Bauer, PH.D. (*Halle*), Cairo, Egypt.
Ferdinand Byrne, L.D.S., F.P.S. (*Glasgow*), Liverpool, England.
Ernest Spencer Calder, Providence, R. I.
Guy Edward Flagg, Nashua, N. H.
Samuel Glasser, Boston.
John Lindsay Webster Jenkins, A.B. (*Harvard*), Boston.
Frederic Anthony Keyes, Boston.
Ernst Otto Reinhold Kindstrand, Stockholm, Sweden.
James Timothy McGrath, So. Boston.
Simon Myerson, Boston.
Charles Stevens Parker, Boston.
Arthur Henry Pickett, L.D.S., R.C.S. (*England*), Tunbridge Wells, England.
Arthur Garfield Rand, Nantucket.
Joseph Aloysius Ring, Dorchester.
Alfred Pierpont Russell, Jr., S.B. (*Howard*), Boston.
Carl Eaton Safford, Attleboro.
Clarence Shannon, Lexington.
Roger Browne Taft, Cambridge.
Mark Tishler, D.M.D. (*Tufts*), Boston.
Peter Simenowich Tschitschkan, Charkoft City, Russia.
Alexander James Wright, L.D.S., R.C.S. (*Edinburgh*), Perth, West Australia.

1909

Isaac Charles Arkin, Roxbury.
Clarence Fielding Churchill, Boston.
Lemuel Morgan Davis, Boston.
William Francis Drea, Boston.
James Edward Gibbons, Winthrop.
Henry Dwight Howard, Jr., B.S. (*Dartmouth*), Boston.
Isadore Hyam Lazarus, Oak Bluffs.
Raymond James Murphy, W. Stoughton.
Philip Wilkins Stone, Holyoke.
Frederick Jeremiah Sullivan, Fall River.

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